

\$ pl

<...snip...>

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?- consult('hps.pro').
% gv.pro compiled 0.02 sec, 2,892 bytes
% combosets.pro compiled 0.00 sec, 7,076 bytes
% hps.pro compiled 0.03 sec, 36,472 bytes
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Yes

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?- demo(100).
Problem: numbers = {2,5,4,7,8} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,5,9,2,1} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,9,2,1,7} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,4,3,7,8} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,7,0,5,6} and goal = 4
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 4 + ( 7 * ( 0 * ( 5 * 6 ) ) ) )
Problem: numbers = {7,4,7,2,8} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 8 + ( ( 7 - 7 ) * ( 4 * 2 ) ) )
Problem: numbers = {8,5,5,7,2} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,4,3,0,9} and goal = 1
considering rule 1 ...
considering rule 2 ...
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considering rule 3 ...
considering rule 4 ...
application of rule 4 produces ( ( 5 - 4 ) + ( 0 * ( 3 * 9 ) ) )
Problem: numbers = {1,0,0,1,8} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
application of rule 7 produces ( ( 1 + 1 ) + ( 0 * ( 0 * 8 ) ) )
Problem: numbers = {7,1,4,0,7} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,0,1,4,7} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,6,7,4,9} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,4,7,7,3} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 3 + ( ( 7 - 7 ) * ( 2 * 4 ) ) )
Problem: numbers = {9,9,2,9,6} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 9 - 9 ) * ( 2 * ( 9 * 6 ) ) )
Problem: numbers = {6,1,2,1,1} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,6,4,3,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,2,7,4,9} and goal = 5
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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,7,9,1,8} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,6,9,0,0} and goal = 1
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 1 + ( 6 * ( 9 * ( 0 * 0 ) ) ) )
Problem: numbers = {0,2,7,2,4} and goal = 2
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 2 + ( 0 * ( 7 * ( 2 * 4 ) ) ) )
Problem: numbers = {9,5,8,2,8} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 8 - 8 ) * ( 9 * ( 5 * 2 ) ) )
Problem: numbers = {3,8,4,9,2} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,2,2,6,6} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,1,0,0,9} and goal = 2
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 2 + ( 1 * ( 0 * ( 0 * 9 ) ) ) )
Problem: numbers = {8,2,5,1,0} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,7,9,3,7} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
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Problem: numbers = {5,2,3,8,5} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,4,0,4,1} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,9,3,2,3} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces (2 + ((3 - 3) * (4 * 9)))
Problem: numbers = {6,4,3,5,3} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,5,3,6,2} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,3,4,2,1} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,9,1,8,6} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,6,1,6,6} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces (1 + ((6 - 6) * (4 * 6)))
Problem: numbers = {2,7,1,4,3} and goal = 9
considering rule 1 ...

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considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,6,2,7,2} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,2,3,3,2} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,7,2,3,1} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,0,9,4,7} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,4,9,2,2} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 9 + ( ( 2 - 2 ) * ( 7 * 4 ) ) )
Problem: numbers = {3,0,3,1,1} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
application of rule 7 produces ( ( 1 + 1 ) + ( 3 * ( 0 * 3 ) ) )
Problem: numbers = {8,1,9,9,3} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,7,5,2,1} and goal = 9
considering rule 1 ...
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considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,3,2,5,9} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,6,8,5,4} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,2,7,9,2} and goal = 9
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 9 + ( 0 * ( 2 * ( 7 * 2 ) ) ) )
Problem: numbers = {6,7,7,4,9} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 6 + ( ( 7 - 7 ) * ( 4 * 9 ) ) )
Problem: numbers = {8,3,6,0,1} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 8 * ( 3 * ( 6 * ( 0 * 1 ) ) ) )
Problem: numbers = {9,0,8,9,2} and goal = 8
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 8 + ( 9 * ( 0 * ( 9 * 2 ) ) ) )
Problem: numbers = {2,4,1,3,9} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,3,2,5,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,1,9,2,2} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 2 - 2 ) * ( 6 * ( 1 * 9 ) ) )
Problem: numbers = {7,4,7,9,1} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
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considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,5,9,1,6} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 5 + ( ( 6 - 6 ) * ( 9 * 1 ) ) )
Problem: numbers = {1,7,0,0,9} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,8,0,4,6} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,6,7,5,2} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,0,4,3,2} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,8,2,1,1} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,3,4,5,5} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,3,5,9,9} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
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considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ($5 + ((3 - 3) * (9 * 9)))$
Problem: numbers = {8,6,9,1,1} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ($6 + ((1 - 1) * (8 * 9)))$
Problem: numbers = {0,1,4,4,9} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,5,6,8,0} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,8,7,8,2} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ($(8 - 8) * (9 * (7 * 2))$)
Problem: numbers = {0,9,8,4,4} and goal = 9
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ($9 + (0 * (8 * (4 * 4)))$)
Problem: numbers = {0,2,2,9,1} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,2,1,6,7} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ($(7 - 7) * (2 * (1 * 6))$)
Problem: numbers = {4,5,8,1,8} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ($4 + ((8 - 8) * (5 * 1)))$
Problem: numbers = {0,8,3,4,3} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,7,4,2,5} and goal = 0
considering rule 1 ...
considering rule 2 ...


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considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,7,6,3,9} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 9 + ( ( 6 - 6 ) * ( 7 * 3 ) ) )
Problem: numbers = {9,7,9,8,6} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 7 + ( ( 9 - 9 ) * ( 8 * 6 ) ) )
Problem: numbers = {3,1,5,7,3} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,5,6,1,0} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,3,1,7,9} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,7,0,8,5} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,5,7,9,9} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 7 + ( ( 9 - 9 ) * ( 3 * 5 ) ) )
Problem: numbers = {9,1,0,3,1} and goal = 3
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 3 + ( 9 * ( 1 * ( 0 * 1 ) ) ) )
Problem: numbers = {3,1,6,2,0} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 3 * ( 1 * ( 6 * ( 2 * 0 ) ) ) )
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Problem: numbers = {2,5,6,9,4} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,0,0,0,7} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,8,6,4,0} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,3,0,3,0} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
application of rule 6 produces ((3 / 3) + (6 * (0 * 0)))
Problem: numbers = {0,9,9,9,1} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,5,8,2,5} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,8,3,2,0} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,9,1,7,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...

considering rule 8 ...
Problem: numbers = {8,1,0,2,6} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces (6 + (8 * (1 * (0 * 2))))
Problem: numbers = {2,5,2,9,0} and goal = 9
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces (9 + (2 * (5 * (2 * 0))))
Problem: numbers = {2,7,6,0,8} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,8,8,6,3} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces (6 + ((8 - 8) * (9 * 3)))
Problem: numbers = {0,7,6,2,5} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,1,7,0,4} and goal = 0
considering rule 1 ...
application of rule 1 produces (8 * (1 * (7 * (0 * 4))))
Problem: numbers = {3,6,0,9,5} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,9,1,2,2} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
application of rule 8 produces ((2 + 2) + (0 * (9 * 1)))
Problem: numbers = {8,3,5,8,3} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,1,5,2,2} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...

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considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,7,4,6,7} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 7 - 7 ) * ( 1 * 6 ) ) )
Problem: numbers = {8,9,3,1,7} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
```

Yes

?- demo(100).

Problem: numbers = {7,3,6,9,8} and goal = 6

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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
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Problem: numbers = {3,3,4,8,4} and goal = 2

```
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
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Problem: numbers = {4,3,5,2,7} and goal = 0

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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
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Problem: numbers = {3,4,0,2,7} and goal = 0

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considering rule 1 ...
application of rule 1 produces ( 3 * ( 4 * ( 0 * ( 2 * 7 ) ) ) )
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Problem: numbers = {3,7,1,2,8} and goal = 4

```
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
```

Problem: numbers = {2,8,9,2,3} and goal = 1

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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
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considering rule 8 ...
Problem: numbers = {0,1,0,2,9} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,3,0,6,9} and goal = 3
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 3 + ( 0 * ( 0 * ( 6 * 9 ) ) ) )
Problem: numbers = {8,4,1,7,4} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,3,7,5,5} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,4,6,5,1} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 6 + ( ( 4 - 4 ) * ( 5 * 1 ) ) )
Problem: numbers = {1,7,9,1,3} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 7 + ( ( 1 - 1 ) * ( 9 * 3 ) ) )
Problem: numbers = {8,6,2,9,2} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,4,5,3,3} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,6,4,8,3} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
```

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considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,3,1,7,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,0,9,4,4} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,8,7,9,9} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,8,8,1,3} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,5,7,8,7} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,8,7,8,2} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 8 - 8 ) * ( 4 * ( 7 * 2 ) ) )
Problem: numbers = {2,7,6,1,5} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,2,1,4,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
```

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considering rule 8 ...
Problem: numbers = {2,7,5,3,1} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,1,0,5,4} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 3 * ( 1 * ( 0 * ( 5 * 4 ) ) ) )
Problem: numbers = {3,0,4,7,0} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,9,7,0,4} and goal = 4
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 4 + ( 8 * ( 9 * ( 7 * 0 ) ) ) )
Problem: numbers = {1,6,3,3,2} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,0,4,0,7} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 2 * ( 0 * ( 4 * ( 0 * 7 ) ) ) )
Problem: numbers = {0,5,6,4,0} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 0 * ( 5 * ( 6 * ( 4 * 0 ) ) ) )
Problem: numbers = {2,7,5,2,1} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,8,4,5,1} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,1,9,0,6} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 6 * ( 1 * ( 9 * ( 0 * 6 ) ) ) )
Problem: numbers = {4,3,5,4,2} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 2 + ( ( 4 - 4 ) * ( 3 * 5 ) ) )
Problem: numbers = {2,5,7,9,4} and goal = 3
```

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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,6,0,4,3} and goal = 1
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 1 + ( 6 * ( 0 * ( 4 * 3 ) ) ) )
Problem: numbers = {4,8,5,8,9} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,6,0,9,4} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 6 + ( 0 * ( 0 * ( 9 * 4 ) ) ) )
Problem: numbers = {1,7,6,0,1} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,3,7,9,7} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 7 - 7 ) * ( 2 * ( 3 * 9 ) ) )
Problem: numbers = {7,9,4,3,7} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,9,4,8,1} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 1 + ( ( 4 - 4 ) * ( 9 * 8 ) ) )
Problem: numbers = {7,9,1,3,8} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,6,1,5,0} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
```


considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,1,8,9,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,3,6,5,1} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ((1 - 1) * (3 * (6 * 5)))
Problem: numbers = {4,2,0,0,4} and goal = 0
considering rule 1 ...
application of rule 1 produces (4 * (2 * (0 * (0 * 4))))
Problem: numbers = {6,2,0,8,0} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,6,6,6,5} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,4,2,7,3} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,2,6,6,8} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,6,7,6,5} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,9,7,5,5} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...

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considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,5,4,9,1} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,8,2,3,4} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,6,9,0,6} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,9,7,0,0} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,5,3,5,8} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,8,4,1,9} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,9,3,6,7} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,4,0,4,1} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 3 * ( 4 * ( 0 * ( 4 * 1 ) ) ) )
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Problem: numbers = {3,7,4,6,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces (6 + (3 * (7 * (4 * 0))))
Problem: numbers = {1,9,7,3,2} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,2,1,4,4} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,0,0,1,5} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,6,2,5,9} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,7,5,8,1} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,3,5,2,8} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,4,8,3,9} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,5,8,4,7} and goal = 6
considering rule 1 ...
considering rule 2 ...

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considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,6,7,0,7} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,0,1,7,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,0,6,4,0} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,5,4,8,3} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 3 - 3 ) * ( 5 * 8 ) ) )
Problem: numbers = {4,2,0,1,9} and goal = 4
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 4 + ( 2 * ( 0 * ( 1 * 9 ) ) ) )
Problem: numbers = {1,8,9,3,7} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,2,9,3,2} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,6,6,7,5} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
```

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considering rule 8 ...
Problem: numbers = {6,9,7,7,6} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,7,0,0,6} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 6 + ( 0 * ( 7 * ( 0 * 0 ) ) ) )
Problem: numbers = {8,6,7,8,6} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 8 - 8 ) * ( 6 * ( 7 * 6 ) ) )
Problem: numbers = {5,3,8,1,4} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,2,7,1,3} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,6,4,0,7} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,2,1,4,4} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,5,9,3,4} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,0,5,4,0} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 3 * ( 0 * ( 5 * ( 4 * 0 ) ) ) )
Problem: numbers = {8,6,8,3,7} and goal = 9
considering rule 1 ...
considering rule 2 ...
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considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,4,3,7,3} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,2,3,8,3} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,5,4,1,5} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 5 - 5 ) * ( 8 * 1 ) ) )
Problem: numbers = {4,3,7,5,3} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,7,6,3,7} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 3 + ( ( 7 - 7 ) * ( 9 * 6 ) ) )
Problem: numbers = {8,2,1,8,5} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,0,7,2,2} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,8,9,8,7} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
```

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considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,0,7,9,5} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,9,4,3,4} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 4 - 4 ) * ( 2 * ( 9 * 3 ) ) )
Problem: numbers = {4,9,0,2,0} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 4 * ( 9 * ( 0 * ( 2 * 0 ) ) ) )
Problem: numbers = {5,9,9,9,2} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
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Yes

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Problem: numbers = {2,6,3,9,2} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 9 + ( ( 2 - 2 ) * ( 6 * 3 ) ) )
Problem: numbers = {8,8,1,8,0} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,7,5,4,2} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,0,9,0,4} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 6 * ( 0 * ( 9 * ( 0 * 4 ) ) ) )
Problem: numbers = {0,2,7,9,1} and goal = 7
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 7 + ( 0 * ( 2 * ( 9 * 1 ) ) ) )
Problem: numbers = {0,3,2,1,3} and goal = 1
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 1 + ( 0 * ( 3 * ( 2 * 3 ) ) ) )
Problem: numbers = {8,1,4,1,7} and goal = 1
```

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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,3,7,4,6} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,7,8,4,3} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,0,0,3,5} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,0,6,7,9} and goal = 7
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 7 + ( 2 * ( 0 * ( 6 * 9 ) ) ) )
Problem: numbers = {8,8,3,6,5} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,3,5,1,8} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,3,0,9,0} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,6,8,6,5} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
```


considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,9,6,4,1} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,2,7,8,9} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,8,8,4,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,5,7,2,4} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,9,2,3,2} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,8,8,9,4} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ((9 - 9) * (8 * (8 * 4)))
Problem: numbers = {4,6,0,0,3} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,9,2,6,6} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...

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considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,8,9,2,1} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 9 + ( ( 2 - 2 ) * ( 8 * 1 ) ) )
Problem: numbers = {8,4,3,7,8} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,9,6,6,2} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,1,7,7,1} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,4,4,7,5} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 7 + ( ( 4 - 4 ) * ( 6 * 5 ) ) )
Problem: numbers = {3,4,3,0,4} and goal = 3
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 3 + ( 4 * ( 3 * ( 0 * 4 ) ) ) )
Problem: numbers = {1,7,5,1,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,2,5,4,1} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,1,4,9,8} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
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considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,8,2,1,6} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,3,8,4,6} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,0,3,6,0} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,0,8,3,6} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 0 * ( 0 * ( 8 * ( 3 * 6 ) ) ) )
Problem: numbers = {6,9,8,2,7} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,4,9,4,4} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,4,5,4,6} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,4,5,3,8} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 5 + ( ( 3 - 3 ) * ( 4 * 8 ) ) )
Problem: numbers = {3,3,8,9,1} and goal = 5
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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,6,6,4,1} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,0,6,7,5} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,1,8,3,9} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,0,7,4,8} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,8,5,6,2} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 2 + ( ( 5 - 5 ) * ( 8 * 6 ) ) )
Problem: numbers = {8,9,4,2,7} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,4,8,7,3} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,7,5,2,0} and goal = 5
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considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 5 + ( 3 * ( 7 * ( 2 * 0 ) ) ) )
Problem: numbers = {2,7,7,6,4} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,6,8,7,9} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,2,0,0,8} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,8,5,6,6} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,0,6,0,8} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 6 + ( 1 * ( 0 * ( 0 * 8 ) ) ) )
Problem: numbers = {2,2,2,9,1} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 2 - 2 ) * ( 2 * ( 9 * 1 ) ) )
Problem: numbers = {6,2,6,1,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 6 + ( 2 * ( 6 * ( 1 * 0 ) ) ) )
Problem: numbers = {4,4,4,8,7} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,5,1,9,5} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 1 - 1 ) * ( 5 * ( 9 * 5 ) ) )
Problem: numbers = {9,5,4,5,5} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
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considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,4,4,6,9} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,4,3,1,0} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,7,9,1,3} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,0,5,7,9} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
application of rule 4 produces ( ( 5 - 4 ) + ( 0 * ( 7 * 9 ) ) )
Problem: numbers = {0,8,5,0,0} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,7,3,1,6} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,7,9,2,2} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 5 + ( ( 2 - 2 ) * ( 7 * 9 ) ) )
Problem: numbers = {6,6,8,7,1} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
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considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,8,4,8,4} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,2,1,0,5} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,1,8,3,6} and goal = 1
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 1 + ( 0 * ( 8 * ( 3 * 6 ) ) ) )
Problem: numbers = {5,6,5,5,3} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,9,7,6,2} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 7 - 7 ) * ( 9 * ( 6 * 2 ) ) )
Problem: numbers = {8,6,7,5,5} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,7,9,0,4} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,7,8,0,1} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,4,7,7,8} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
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considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 7 - 7 ) * ( 6 * 8 ) ) )
Problem: numbers = {1,9,4,2,6} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,0,2,6,6} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 1 * ( 0 * ( 2 * ( 6 * 6 ) ) ) )
Problem: numbers = {2,8,2,4,7} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,8,1,4,9} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 9 - 9 ) * ( 8 * 1 ) ) )
Problem: numbers = {7,3,3,7,7} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,2,7,9,5} and goal = 9
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 9 + ( 0 * ( 2 * ( 7 * 5 ) ) ) )
Problem: numbers = {2,4,7,7,3} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,9,7,7,0} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,6,2,8,3} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
```


Problem: numbers = {8,5,9,7,2} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,2,1,7,7} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,2,7,4,5} and goal = 5
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces (5 + (0 * (2 * (7 * 4))))
Problem: numbers = {6,3,9,6,0} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,1,9,5,2} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,9,9,4,9} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,4,8,6,4} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,0,6,8,6} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,3,1,5,6} and goal = 4
considering rule 1 ...
considering rule 2 ...

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considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,7,9,6,0} and goal = 2
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 2 + ( 7 * ( 9 * ( 6 * 0 ) ) ) )
Problem: numbers = {3,5,4,0,2} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,1,5,4,1} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 1 - 1 ) * ( 6 * 5 ) ) )
Problem: numbers = {8,3,7,6,0} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,2,7,6,8} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,9,7,9,5} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 7 - 7 ) * ( 9 * ( 9 * 5 ) ) )
```

Yes

?- demo(100).

```
Problem: numbers = {5,8,3,4,0} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 5 * ( 8 * ( 3 * ( 4 * 0 ) ) ) )
Problem: numbers = {3,4,8,1,5} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,8,8,2,7} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 2 - 2 ) * ( 8 * ( 8 * 7 ) ) )
Problem: numbers = {4,0,9,0,6} and goal = 9
```

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considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 9 + ( 4 * ( 0 * ( 0 * 6 ) ) ) )
Problem: numbers = {2,7,2,4,9} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 2 - 2 ) * ( 7 * ( 4 * 9 ) ) )
Problem: numbers = {2,7,5,3,8} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,8,7,6,7} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,2,0,2,4} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 4 * ( 2 * ( 0 * ( 2 * 4 ) ) ) )
Problem: numbers = {3,3,9,8,7} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,2,6,8,1} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 8 + ( ( 1 - 1 ) * ( 2 * 6 ) ) )
Problem: numbers = {5,1,7,0,6} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,1,3,9,0} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,8,1,1,9} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
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considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,2,2,6,8} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,0,7,9,5} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,2,7,0,8} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 8 * ( 2 * ( 7 * ( 0 * 8 ) ) ) )
Problem: numbers = {2,5,9,9,9} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,4,3,5,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 5 + ( ( 4 - 4 ) * ( 3 * 4 ) ) )
Problem: numbers = {8,0,4,2,5} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,1,6,6,9} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,7,8,6,9} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 8 - 8 ) * ( 7 * ( 6 * 9 ) ) )
Problem: numbers = {2,3,4,7,8} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
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considering rule 8 ...
Problem: numbers = {1,4,8,4,8} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,8,3,1,9} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 9 + ( ( 3 - 3 ) * ( 8 * 1 ) ) )
Problem: numbers = {9,3,4,1,0} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,8,9,6,5} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 6 - 6 ) * ( 8 * ( 9 * 5 ) ) )
Problem: numbers = {2,1,3,9,7} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,8,4,0,5} and goal = 8
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 8 + ( 6 * ( 4 * ( 0 * 5 ) ) ) )
Problem: numbers = {3,2,3,6,4} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 3 - 3 ) * ( 2 * 6 ) ) )
Problem: numbers = {5,4,9,0,1} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,4,1,7,7} and goal = 7
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 7 + ( 0 * ( 4 * ( 1 * 7 ) ) ) )
Problem: numbers = {7,9,0,0,9} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
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considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,1,1,9,1} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,4,4,5,0} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,2,1,2,4} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 2 - 2 ) * ( 1 * ( 2 * 4 ) ) )
Problem: numbers = {3,2,8,7,7} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 8 + ( ( 7 - 7 ) * ( 3 * 2 ) ) )
Problem: numbers = {9,3,1,7,3} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,0,6,4,0} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,5,8,1,5} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 1 + ( ( 5 - 5 ) * ( 8 * 5 ) ) )
Problem: numbers = {1,3,9,5,9} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 5 + ( ( 9 - 9 ) * ( 1 * 3 ) ) )
Problem: numbers = {9,5,7,1,7} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
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considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,2,6,9,0} and goal = 9
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 9 + ( 1 * ( 2 * ( 6 * 0 ) ) ) )
Problem: numbers = {3,4,9,1,0} and goal = 3
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 3 + ( 4 * ( 9 * ( 1 * 0 ) ) ) )
Problem: numbers = {7,8,8,0,1} and goal = 1
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 1 + ( 7 * ( 8 * ( 8 * 0 ) ) ) )
Problem: numbers = {6,0,5,2,6} and goal = 6
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 6 + ( 0 * ( 5 * ( 2 * 6 ) ) ) )
Problem: numbers = {0,8,3,4,4} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,1,1,6,7} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,5,0,0,4} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,9,0,6,5} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
application of rule 4 produces ( ( 6 - 5 ) + ( 0 * ( 3 * 9 ) ) )
Problem: numbers = {7,2,6,1,7} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 2 + ( ( 7 - 7 ) * ( 6 * 1 ) ) )
Problem: numbers = {6,6,2,2,5} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,1,9,6,4} and goal = 5
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considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,2,4,6,1} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,8,1,8,9} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,0,2,1,6} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 4 * ( 0 * ( 2 * ( 1 * 6 ) ) ) )
Problem: numbers = {8,2,8,1,7} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 2 + ( ( 8 - 8 ) * ( 1 * 7 ) ) )
Problem: numbers = {1,3,7,7,4} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 4 + ( ( 7 - 7 ) * ( 1 * 3 ) ) )
Problem: numbers = {9,0,7,2,2} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,5,4,4,3} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,1,0,0,0} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 4 * ( 1 * ( 0 * ( 0 * 0 ) ) ) )
Problem: numbers = {2,2,6,6,1} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
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considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,1,6,9,4} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {9,8,2,2,9} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 9 + ( ( 2 - 2 ) * ( 8 * 9 ) ) )
Problem: numbers = {7,0,2,5,6} and goal = 7
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 7 + ( 0 * ( 2 * ( 5 * 6 ) ) ) )
Problem: numbers = {5,9,6,3,9} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,5,6,0,6} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,9,7,0,9} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,4,0,9,4} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 3 * ( 4 * ( 0 * ( 9 * 4 ) ) ) )
Problem: numbers = {2,8,6,8,4} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,0,8,6,5} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
application of rule 4 produces ( ( 6 - 5 ) + ( 0 * ( 2 * 8 ) ) )
Problem: numbers = {0,1,3,5,7} and goal = 5
considering rule 1 ...
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considering rule 2 ...
application of rule 2 produces ( 5 + ( 0 * ( 1 * ( 3 * 7 ) ) ) )
Problem: numbers = {4,7,8,3,8} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,1,0,1,7} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {6,5,5,6,7} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,3,1,1,7} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,6,4,2,6} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,6,7,5,9} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,8,4,6,4} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {3,2,8,7,2} and goal = 2
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
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considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,1,5,1,9} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,9,4,7,4} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,5,3,1,2} and goal = 5
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,4,3,6,2} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
application of rule 5 produces ( 3 + ( ( 4 - 4 ) * ( 6 * 2 ) ) )
Problem: numbers = {9,3,0,6,1} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,7,0,3,5} and goal = 5
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 5 + ( 0 * ( 7 * ( 0 * 3 ) ) ) )
Problem: numbers = {9,3,5,3,0} and goal = 8
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,4,4,1,8} and goal = 0
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
application of rule 3 produces ( ( 8 - 8 ) * ( 4 * ( 4 * 1 ) ) )
Problem: numbers = {7,8,7,3,4} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
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considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {5,0,5,6,3} and goal = 0
considering rule 1 ...
application of rule 1 produces ( 5 * ( 0 * ( 5 * ( 6 * 3 ) ) ) )
Problem: numbers = {8,2,0,0,1} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {8,8,3,3,3} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {2,0,0,7,7} and goal = 1
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
application of rule 6 produces ( ( 0 / 0 ) + ( 2 * ( 7 * 7 ) ) )
Problem: numbers = {6,0,8,4,3} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {7,2,6,8,6} and goal = 6
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,0,3,4,5} and goal = 4
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 4 + ( 0 * ( 0 * ( 3 * 5 ) ) ) )
Problem: numbers = {9,8,5,2,7} and goal = 7
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {1,8,4,3,2} and goal = 4
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
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considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {0,5,1,7,2} and goal = 5
considering rule 1 ...
considering rule 2 ...
application of rule 2 produces ( 5 + ( 0 * ( 1 * ( 7 * 2 ) ) ) )
Problem: numbers = {4,1,4,0,1} and goal = 9
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
Problem: numbers = {4,8,1,4,2} and goal = 3
considering rule 1 ...
considering rule 2 ...
considering rule 3 ...
considering rule 4 ...
considering rule 5 ...
considering rule 6 ...
considering rule 7 ...
considering rule 8 ...
```

Yes

?- halt.