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

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

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

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

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

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

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

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

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

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


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

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

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


true
Unknown action:
true
Unknown action:
```