

COLLECTIVE DEMO

?- demo(5).

Problem: Numbers = {2, 5, 5, 0, 7} Goal = 7

considering rule 1 ...

considering rule 2 ...

application of rule 2 produces $(7 + (2 * (5 * (5 * 0))))$

Problem: Numbers = {8, 4, 9, 5, 9} 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, 4, 9, 2} Goal = 1

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 $((5 / 5) * (9 - (4 * 2)))$

Problem: Numbers = {9, 5, 6, 0, 7} Goal = 6

considering rule 1 ...

considering rule 2 ...

application of rule 2 produces $(6 + (9 * (5 * (0 * 7))))$

Problem: Numbers = {9, 2, 0, 4, 2} 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 .

?- demo(10).

Problem: Numbers = {8, 7, 1, 9, 6} 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, 8, 5, 2, 5} 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, 0, 7, 3, 7} 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, 4, 9, 6, 0} 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, 4, 4, 2, 3} 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, 1, 0, 8, 1} 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, 8, 9, 5} Goal = 5

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 $((8 / 8) * ((1 + 9) - 5))$

Problem: Numbers = {6, 5, 0, 3, 3} 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, 7, 7, 8, 1} Goal = 0

considering rule 1 ...

considering rule 2 ...

considering rule 3 ...

application of rule 3 produces $((7 - 7) * (9 * (8 * 1)))$

Problem: Numbers = {6, 3, 2, 0, 3} Goal = 2

considering rule 1 ...

considering rule 2 ...

application of rule 2 produces $(2 + (6 * (3 * (0 * 3))))$

true .

?- demo(15).

Problem: Numbers = {1, 2, 9, 3, 8} 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, 0, 4, 5, 7} 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, 3, 4, 1} Goal = 7

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 $((1 / 1) * (4 + (6 - 3)))$

Problem: Numbers = {7, 5, 4, 0, 0} 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 $((0 / 0) * (4 - (7 - 5)))$

Problem: Numbers = {5, 0, 8, 6, 2} Goal = 6

considering rule 1 ...

considering rule 2 ...

application of rule 2 produces $(6 + (5 * (0 * (8 * 2))))$

Problem: Numbers = {7, 4, 5, 6, 4} 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 $((4 / 4) * ((7 + 5) / 6))$

Problem: Numbers = {3, 0, 6, 3, 4} Goal = 4

considering rule 1 ...

considering rule 2 ...

application of rule 2 produces $(4 + (3 * (0 * (6 * 3))))$

Problem: Numbers = {0, 0, 0, 5, 5} 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, 6, 7, 2, 4} 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, 8, 7, 1} 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, 7, 7, 7, 2} Goal = 1

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 $((7 / 7) * (2 + (6 - 7)))$

Problem: Numbers = {9, 6, 1, 2, 9} 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 $((9 / 9) * ((6 * 1) - 2))$

Problem: Numbers = {0, 7, 9, 1, 5} Goal = 0

considering rule 1 ...
application of rule 1 produces $(0 * (7 * (9 * (1 * 5))))$

Problem: Numbers = {7, 5, 9, 5, 8} Goal = 9

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 $((5 / 5) * (9 * (8 - 7)))$

Problem: Numbers = {2, 5, 6, 5, 7} 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 $((5 / 5) * (2 * (7 - 6)))$
true .