

CCM Programming Challenge
Crypto: Problem Generation
Yehua Zhang

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

Solution: $((1+8)+((9/9)/3))$

MSA: I first saw 1 plus 9 can form the goal 9, then I tried to eliminate the rest numbers to 0.

Problem : numbers = {0, 9, 0, 9, 9} and goal = 2

Solution: N/A

MSA: N/A

Problem : numbers = {7, 5, 8, 0, 5} and goal = 1

Solution: $((8-7)/(5/5))+0$

MSA: 8-7 can form the goal 1 then 0 can be formed from rest numbers.

Problem : numbers = {8, 1, 2, 1, 5} and goal = 2

Solution: $(2+(((1-1)/5)/8))$

MSA: Since the solution 2 is already presented, all I needed to do is form 0 from the rest numbers.

Problem : numbers = {3, 5, 1, 5, 7} and goal = 2

Solution: $((3-1)+((5-5)/7))$

MSA: First I worked with 3-1 to get 2 then I got 0 from the rest numbers.

Problem : numbers = {7, 6, 7, 4, 9} and goal = 0

Solution: $((((7-7)/6)/4)/9)$

MSA: Since 7-7 can already produce the goal 0, the rest numbers can be eliminated by divided by 0 itself

Problem : numbers = {6, 7, 7, 2, 0} and goal = 0

Solution: $((((0/7)/7)/2)/6)$

MSA: Goal 0 is already presented, then I divided the rest with 0.

Problem : numbers = {2, 8, 1, 4, 9} and goal = 1

Solution: $((4/2)-(9-8))/1)$

MSA: First I saw the goal 1 is presented, then I tried to form 0 or 1 from the rest numbers.

Problem : numbers = {3, 7, 2, 2, 6} and goal = 0

Solution: $((((2-2)/3)/7)/6)$

MSA: Once 2-2 forms 0, everything else can be formed by dividing 0.

Problem : numbers = {4, 0, 8, 7, 8} and goal = 5

Solution: $((4+(8/8))+(0/7))$

MSA: First I noticed there a number 4 then all I needed was a 1, then I saw that I could get 1 from 8/8, then I tried to form 0 or 1 from the rest numbers which the solution was 0/7.