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PRIOR THOUGHTS

Start a counter.

Loop until the value you're testing is zero.

If the least significant bit is one, you increment the count.

Shift the value you're testing right one bit.

The counter now contains the number of 1-bits.

Get the value to required memory.

LET

R1 = answer(number of binary 1)

R2 = counter(16th loop)

R3 = question(value set on memory x3050)

ALGORITHM

0 R1 = 0

1 R2 = 0

2 R2 += 8

3 R2 += 9

4 R3 = value in x3050

5 if R3 negative, GOTO 10

6 R2 -= 1

7 if R2 == 0, GOTO 12

8 R3 += R2

9 if all, GOTO 4

10 R1 += 1

11 if all, GOTO 5

12 x3051 = R1

13 HALT, terminate program by OS