

Reasoning Problems

1

$$\begin{array}{l}
 \text{House} + \text{House} + \text{House} = 45 \\
 \text{Banana} + \text{Banana} + \text{House} = 23 \\
 \text{Banana} + \text{Clock} + \text{Clock} = 10 \\
 \text{Clock} + \text{Banana} + \text{Banana} \times \text{House} = ??
 \end{array}$$

2

$$\begin{array}{r} \text{Hexagon} + \text{pentagon} + \text{square} = 45 \\ 3 \text{ Hexagons} = 45 \\ \text{Hexagon (6) + pentagon (5) + square (4)} = 15 \\ 15 \text{ edges} = 15 \\ 1 \text{ edge} = 1 \end{array}$$

3

$$\begin{array}{r} 1 \text{ edge} = 1 \quad \text{Hexagon} = 15 \\ 2 \text{ bunches of 3 bananas} + 15 = 23 \\ 2 \text{ bunches of 4 bananas} = 8 \\ 1 \text{ bunch of 4 bananas} = 4 \\ 1 \text{ banana} = 1 \end{array}$$

4

$$1 \text{ edge} = 1$$

$$\text{banana} = 1$$

$$4 + \text{clock} + \text{clock} = 10$$

$$2 \text{ clock} = 6$$

$$\text{clock} = 3$$

$$3 \text{ o'clock} = 3 \rightarrow \text{each hour} = 1$$

5

$$1 \text{ edge} = 1$$

$$\text{banana} = 1$$

$$\text{each hour} = 1$$

$$\text{clock} + \text{bananas} + \text{bananas} \times \text{pentagon} = ??$$

$$2 + 3 + \boxed{3 \times 11} = ??$$

$$2 + 3 + 33 = 38$$

6

Can You Solve This Viral “IQ” Test?

$$9 = 72$$

$$8 = 56$$

$$7 = 42$$

$$6 = 30$$

$$5 = 20$$

$$3 = ?$$

7

Answer is 12

“Decreasing subtraction”

$$9 = 72 - 16 = 56$$

$$8 = 56 - 14 = 42$$

$$7 = 42 - 12 = 30$$

$$6 = 30 - 10 = 20$$

$$5 = 20 - 8 = 12$$

$$3 = 12$$

8

Answer is 9
“Decreasing multiplication”

$$9 \times 8 = 72$$

$$8 \times 7 = 56$$

$$7 \times 6 = 42$$

$$6 \times 5 = 30$$

$$5 \times 4 = 20$$

Next line is $\times 3$ $3 \times 3 = 9$

9

Answer is 6 $a \rightarrow a \times (a - 1)$	Answer is 12 “Decreasing subtraction”	Answer is 9 “Decreasing multiplication”
$9 \times 8 = 72$	$9 = 72 - 16 = 56$	$9 \times 8 = 72$
$8 \times 7 = 56$	$8 = 56 - 14 = 42$	$8 \times 7 = 56$
$7 \times 6 = 42$	$7 = 42 - 12 = 30$	$7 \times 6 = 42$
$6 \times 5 = 30$	$6 = 30 - 10 = 20$	$6 \times 5 = 30$
$5 \times 4 = 20$	$5 = 20 - 8 = 12$	$5 \times 4 = 20$
$3 \times 2 = 6$	$3 = 12$	$3 \times 3 = 9$

10

Answer is 6

$$a \rightarrow a \times (a - 1)$$

$$9 \times 8 = 72$$

$$8 \times 7 = 56$$

$$7 \times 6 = 42$$

$$6 \times 5 = 30$$

$$5 \times 4 = 20$$

$$3 \times 2 = 6$$

Answer is 6**“Decreasing subtraction”
With the “missing line”**

$$9 = 72 - 16 = 56$$

$$8 = 56 - 14 = 42$$

$$7 = 42 - 12 = 30$$

$$6 = 30 - 10 = 20$$

$$5 = 20 - 8 = 12$$

$$4 = 12 - 6 = 6$$

$$3 = 6$$

Answer is 6**“Decreasing multiplication”
With the “missing line”**

$$9 \times 8 = 72$$

$$8 \times 7 = 56$$

$$7 \times 6 = 42$$

$$6 \times 5 = 30$$

$$5 \times 4 = 20$$

$$4 \times 3 = 12$$

$$3 \times 2 = 6$$