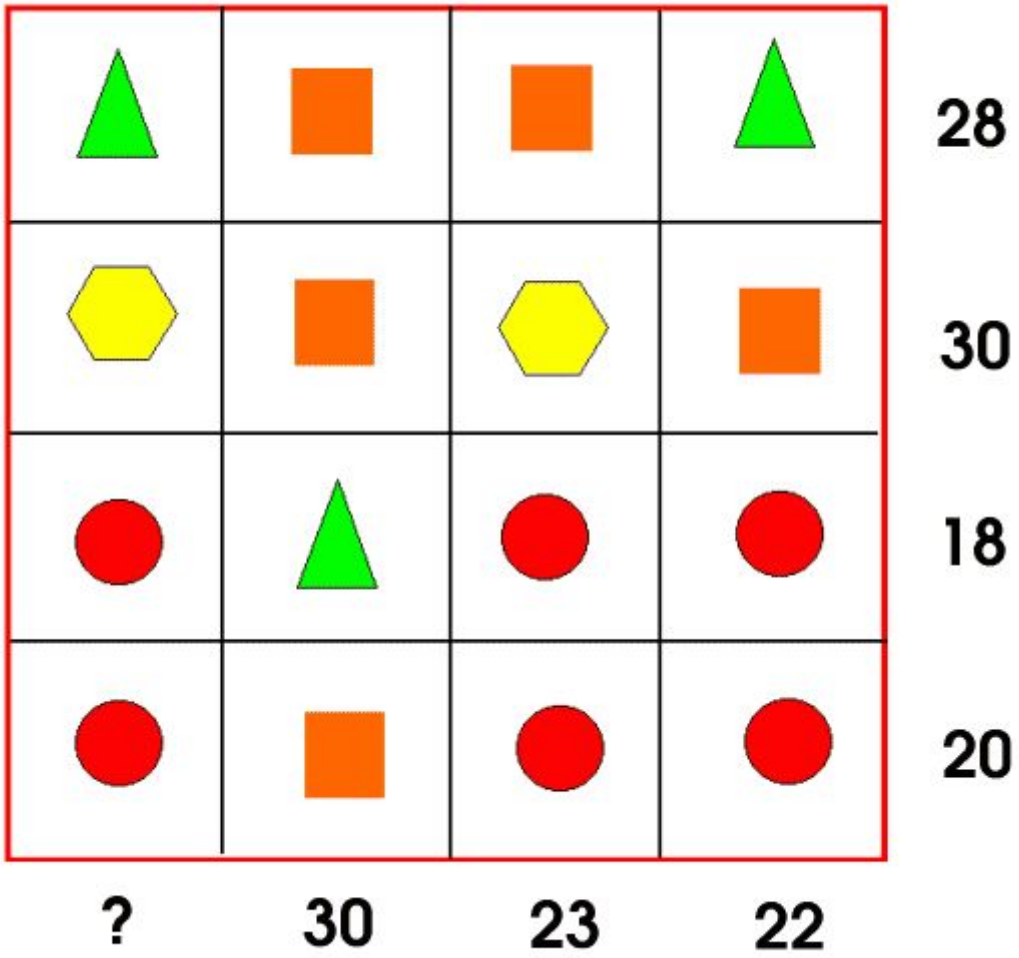
Can you find the missing total that should go where the question mark has been put?



Firstly we shall produce a key to represent each of the four variables:

Shape	Variable
Triangle	T
Square	S
Circle	C
Hexagon	H

Let us consider the bottom two horizontal rows. Forming an equation for both we get:

$3C + T = 18$ (1)

$3C + S = 20$ (2)

Considering the first horizontal row, rearranging to make s the subject of the equation we get:
$2S = 28 - 2T$
Dividing both sides by two gives:
$S = 14 - T$ (3)

Substitution of (3) into (2) for S gives:
$3C - T = 6$ (4)

Solving (1) and (4) simultaneously by their sum produces:
$6C = 24$
Therefore $C = 4$
Given this, substitution of $C = 4$ into (1) gives $T = 6$ and substituting $C = 4$ into (2) gives $S = 8$.

Considering the second horizontal row:
$2H + 2S = 30$
Substituting $S = 8$ into the above equation and solving for H gives $H = 7$.

We want the sum of the vertical row $T + H + 2C = ?$
Given that $T = 6$, $H = 7$ and $C = 4$, $T + H + 2C = 21$