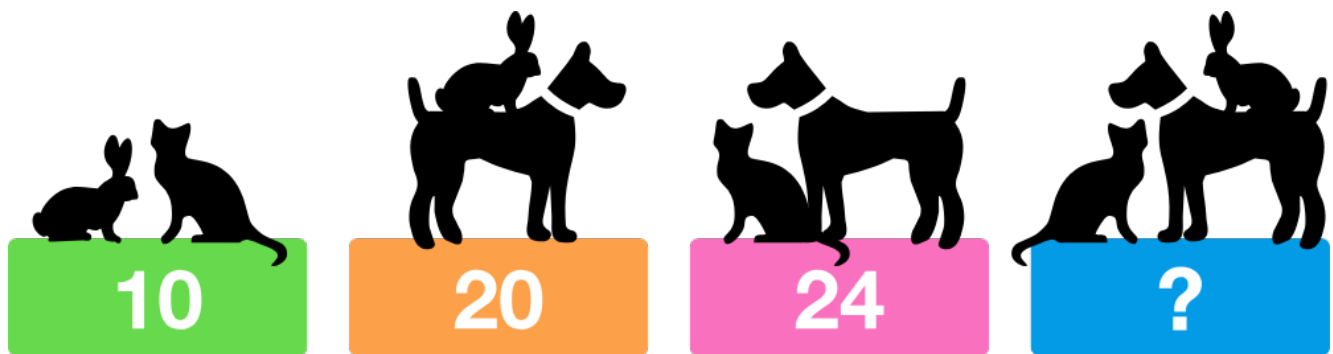


## What weight will the fourth scale display?

Credit: [Brilliant.org](https://brilliant.org)

What weight will the fourth scale display? Think carefully! There's a quick and clever shortcut for solving this.



- 25
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Correct! Wrong!

Let  $R$ ,  $C$ , and  $D$  be the weights of the rabbit, cat, and dog, respectively. Each picture lends itself to an equation, giving us the following system:  $R + C = 10$ ,  $D + R = 20$ ,  $C + D = 24$ ,  $C + D + R = ?$  If we add these equations together, we get  $2C + 2R + 2D = 54$ . If we divide by 2, we are left with the sum of the weights of each animal:  $C + R + D = 27$ .