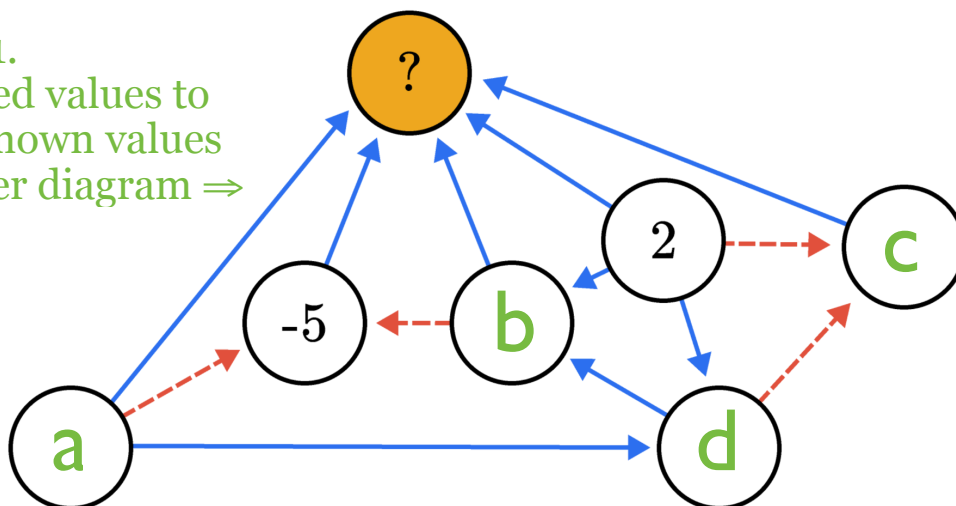


## Math Trivia (Solution)

What's the value of the question mark?

1.  
I've assigned values to  
all the unknown values  
in the number diagram  $\Rightarrow$



From the main number diagram above, we can determine that:

$$\Rightarrow ? = (a) (-5) (b) (2) (c) = -10abc \quad \text{— equation (1)}$$

$$\Rightarrow -5 = a + b \quad \text{— equation (2)}$$

$$\Rightarrow b = 2 \quad (d) = 2d \quad \text{— equation (3)}$$

$$\Rightarrow c = 2 + d \quad \text{— equation (4)}$$

$$\Rightarrow d = 2(a) = 2a \quad \text{— equation (5)}$$

Inserting equation (3) into equation (2):

$$\Rightarrow -5 = a + (2d) = a + 2d \quad \text{— equation (6)}$$

Inserting equation (5) into equation (6):

$$\Rightarrow -5 = a + 2(2a) = a + 4a = 5a$$

$$\Rightarrow -5 = 5a ; -1 = a$$

$$\Rightarrow a = -1 \quad \text{— equation (7)}$$

Inserting equation (7) into equation (2) and equation (5):

$$\Rightarrow -5 = (-1) + b ; b = -4$$

$$\Rightarrow d = 2(-1) = -2 ; d = -2$$

$$\Rightarrow \text{Since } d = -2 ; c = 2 + (-2) = 2 - 2 = 0 ; c = 0$$

Therefore:

$$\Rightarrow ? = -10abc = -10(-1)(-4)(0) = 0 ;$$

$$\Rightarrow ? = 0$$

