Wemi Moyela
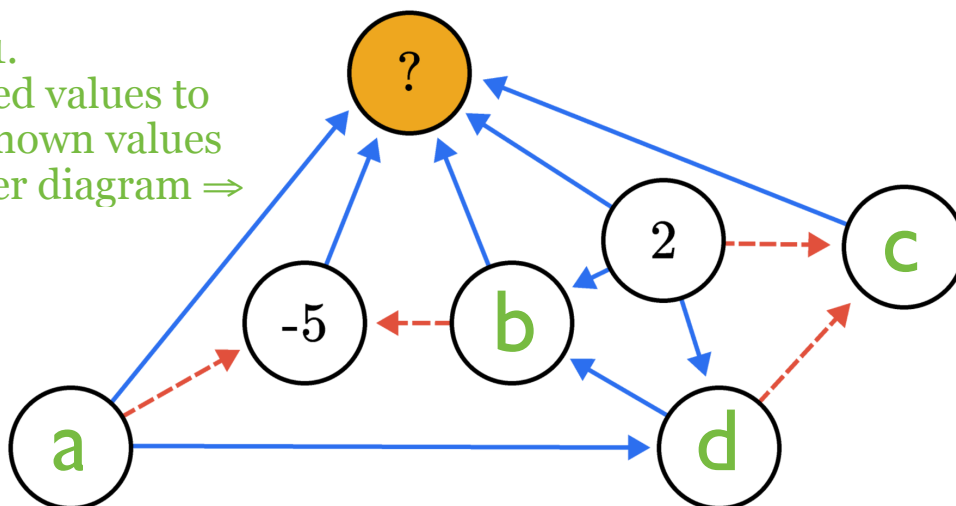
Math Trivia (Solution)

What's the value of the question mark?

1.
I've assigned values to all the unknown values in the number diagram ⇒

From the main number diagram above, we can determine that:
⇒ ? = (a) (-5) (b) (2) (c) = -10abc — equation (1)
⇒ -5 = a + b — equation (2)
⇒ b = 2 (d) = 2d — equation (3)
⇒ c = 2 + d — equation (4)
⇒ d = 2 (a) = 2a — equation (5)

Inserting equation (3) into equation (2):
⇒ -5 = a + (2d) = a + 2d — equation (6)

Inserting equation (5) into equation (6):
⇒ -5 = a + 2 (2a) = a + 4a = 5a
⇒ -5 = 5a ; -1 = a
⇒ a = -1 — equation (7)

Inserting equation (7) into equation (2) and equation (5):
⇒ -5 = (-1) + b ; b = -4
⇒ d = 2 (-1) = -2 ; d = -2
⇒ Since d = -2 ; c = 2 + (-2) = 2 - 2 = 0 ; c = 0

Therefore:
⇒ ? = -10abc = -10 (-1) (-4) (0) = 0 ;
⇒ ? = 0