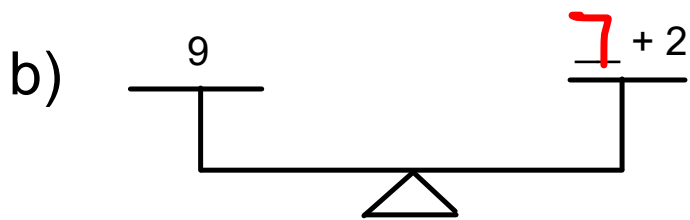
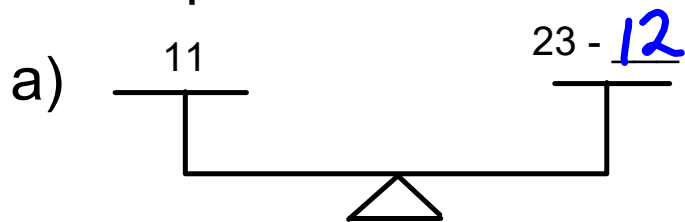


Warm-up



$$\mathbf{x + 5 = 12}$$

$$x + \cancel{5} - \cancel{5} = 12 - 5$$

$$x = 7$$

$$y - 3 = 10$$

$$y - \cancel{3} + \cancel{3} = 10 + 3$$

$$y = 13$$

NOTES

VARIABLE:

- A variable is a letter (like x , y , or z) that represents an unknown or changeable number. Variables allow you to write general expressions, equations, and functions that can be applied to different situations by changing the values of these symbols.
- You can use ANY letter as your variable!

Why do we use variables?

- Letters in math are like using nicknames for numbers we don't know yet.

Solving for the variable

- When solving for the variable (letter), you need to get it alone (isolate it)
- To isolate the variable, you need to **use OPPOSITE operations**
 - > **Addition and Subtraction are opposite operations.**

EXAMPLE

$$5 + n = 27$$

$$5 - 5 + n = 27 - 5$$

$$n = 22$$

What is the opposite operation???

Practice

a) $m + 4 = 9$

$$\cancel{m + 4 - 4} = 9 - 4$$

$$m = 5$$

b) $z - 7 = 2$

$$\cancel{z - 7 + 7} = 2 + 7$$

$$z = 9$$

c) $p + 3 = 6$

$$\cancel{p + 3 - 3} = 6 - 3$$

$$p = 3$$

Do on your own

$$\begin{aligned} d) \quad x + 8 &= 15 \\ x + 8 - 8 &= 15 - 8 \\ x &= 7 \end{aligned}$$

$$\begin{aligned} b) \quad n - 5 &= 3 \\ n - 5 + 5 &= 3 + 5 \\ n &= 8 \end{aligned}$$

$$\begin{aligned} f) \quad k + 6 &= 13 \\ k + 6 - 6 &= 13 - 6 \\ k &= 7 \end{aligned}$$

$$\begin{aligned} g) \quad & 14 = 4 + p \\ & 14 - 4 = \cancel{4 - 4} + p \\ & 10 = p \end{aligned}$$

Homework



