

May 22, 2018

Equations

Opposites:

- addition \leftrightarrow subtraction

- multiplication \leftrightarrow division

- cube root $\sqrt[3]{ }$ \leftrightarrow cubed x^3

- square root $\sqrt{ }$ \leftrightarrow squared x^2

Variables:

- a letter that represents a number

ex. $a^2 + b^2 = c^2$

(\rightarrow variables are $a, b, \text{ & } c$)

- the most common variable is "x"

① $2 + x = 10$

$x = 8$

③ $34 + x = 74$

$x = 40$

② $3 + x = -4$

$x = -7$

Subtraction :

$$\textcircled{1} \quad \cancel{x - 4 = 8}$$

$$\cancel{+4} \quad +4$$

$$x = 12$$

$$\textcircled{3} \quad \cancel{x - 2 = (-4)}$$

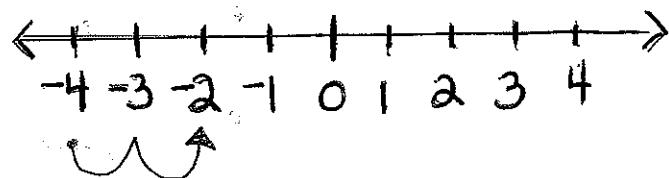
$$\cancel{+2} \quad +2$$

$$x = -2$$

$$\textcircled{2} \quad \cancel{x - 7 = 21}$$

$$\cancel{+7} \quad +7$$

$$x = 28$$



Prove it

$$\begin{aligned} x - 2 &= (-4) \\ -2 - 2 &= (-4) \\ -4 &= -4 \end{aligned}$$



EXERCISES

$$\textcircled{1} \quad x + 7 = 22$$

$$\textcircled{6} \quad 2 + x = -2$$

$$\textcircled{2} \quad x + 57 = 73$$

$$\textcircled{7} \quad x + 3 = 4$$

$$\textcircled{3} \quad x + 11 = 15$$

$$\textcircled{8} \quad x + 5895 = 5932$$

$$\textcircled{4} \quad 7 + x = 32$$

$$\textcircled{9} \quad 9 + x = 9$$

$$\textcircled{5} \quad 1 + x = -1$$

$$\textcircled{10} \quad 137389 + x = 138921$$

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EXERCISES - continued

(11) $x - 4 = 5$

(16) $x - 3 = -4$

(12) $x - 2 = 5$

(17) $x - 37 = 100$

(13) $x - 37 = 37$

(18) $x - 12 = 48$

(14) $x - 12 = 2$

(19) $x - (-2) = -2$

(15) $x - 7 = 7$

(20) $x - (-10) = -8$

