LINEAR EQUATIONS (2)

Solve the following equations:

1. $3x - 7 = 23$

2. $5x + 3 = 25$

3. $8x - 2 = 4x + 10$

4. $3x + 7 = 27 - x$

5. $9x - 3 = 7x + 8$

6. $2x - 5 = 16 - 5x$

7. $2(x + 3) = 18$

8. $4(x - 5) = 8$

9. $3(2x + 7) = 30$

10. $5(2x - 3) = 25$

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1. $3x - 7 = 23$

$3x = 23 + 7$

$3x = 30$

$x = \dfrac{30}{3}$

$x = 10$

2. $5x + 3 = 25$

$5x = 25 - 3$

$5x = 22$

$x = \dfrac{22}{5}$

$x = 4\frac{2}{5}$

3. $8x - 2 = 4x + 10$

$8x - 4x = +10 + 2$

$4x = 12$

$x = \dfrac{12}{4}$

$x = 3$

4. $3x + 7 = 27 - x$

$3x + x = 27 - 7$

$4x = 20$

$x = \dfrac{20}{4}$

$x = 5$

5. $9x - 3 = 7x + 8$

$9x - 7x = 8 + 3$

$2x = 11$

$x = \dfrac{11}{2}$

$x = 5\frac{1}{2}$

6. $2x - 5 = 16 - 5x$

$2x + 5x = 16 + 5$

$7x = 21$

$x = \dfrac{21}{7}$

$x = 3$

7.
$$2(x+3) = 18$$
$$2x + 6 = 18$$
$$2x = 18 - 6$$
$$2x = 12$$
$$x = \frac{12}{2}$$
$$x = 6$$

9.
$$3(2x+7) = 30$$
$$6x + 21 = 30$$
$$6x = 30 - 21$$
$$6x = 9$$
$$x = \frac{9}{6}$$
$$x = 1\frac{3}{6} \quad or \quad x = 1\frac{1}{2}$$

8.
$$4(x-5) = 8$$
$$4x - 20 = 8$$
$$4x = 8 + 20$$
$$4x = 28$$
$$x = \frac{28}{4}$$
$$x = 7$$

10.
$$5(2x-3) = 25$$
$$10x - 15 = 25$$
$$10x = 25 + 15$$
$$10x = 40$$
$$x = \frac{40}{10}$$
$$x = 4$$