

Warm-up

Simplify

$$\begin{aligned} 1) \quad & 3(x-2) \\ & 3x - 6 \\ & 3 \cdot x + 3 \cdot -2 \end{aligned}$$

$$\begin{aligned} 2) \quad & -4(7-3x) \\ & -28 + 12x \\ & -4 \cdot 7 + -4 \cdot -3 \end{aligned}$$

$$\begin{aligned} 3) \quad & 5(-10-3x) \\ & -50 - 15x \Rightarrow \end{aligned}$$

3.3 Multi-Step Eqns

* Combine like terms, distributive prop & other stuff

Like Terms

$$1) \quad 8x - 3x - 10 = 20 \quad \leftarrow \text{Combine } 8x - 3x$$

$$5x - 10 = 20 \quad \leftarrow \text{Just like other probs!}$$

$\begin{array}{r} 5x - 10 = 20 \\ +10 \quad +10 \end{array}$

$$\frac{5x}{5} = \frac{30}{5}$$

$$\textcircled{x = 6}$$

Distributive Prop

$$2) 7x + 2 \cdot (x + 6) = 39 \quad - \text{Distribute } 2$$

$$7x + 2x + 12 = 39 \rightarrow 7x + 2x \text{ like terms}$$

$$9x + 12 = 39 \quad \frac{9x}{9} = \frac{27}{9} \quad x = 3$$

Reciprocal - Multiply By it

$$3) \quad \frac{3}{2}(3x + 5) = -24$$



6. $5a + 3 - 3a = -7$



10. $23 = -4m + 2 + m$

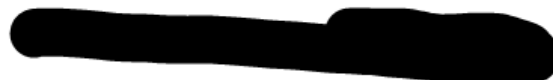
5. $11w - 9 - 7w = 15$

8. $9 = 7z - 13z - 21$



USING THE DISTRIBUTIVE PROPERTY Solve the equation. Check your solution.

12. $3 + 4(z + 5) = 31$



14. $5m + 2(m + 1) = 23$



MULTIPLYING BY A RECIPROCAL Solve the equation. Check your solution.



20. $\frac{3}{2}(x - 5) = -6$

21. $\frac{4}{3}(7 - n) = 12$

