

KEY

Unit 2 Quiz Review Homework

1. Solve.

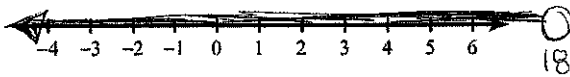
$$\begin{aligned}
 p - 1 &= 5p + 3p - 8 \\
 p - 1 &= 8p - 8 \\
 -p & \quad -p \\
 -1 &= 7p - 8 \\
 +8 & \quad +8 \\
 7 &= 7p \\
 \frac{7}{7} &= \frac{7p}{7} \\
 \boxed{1} &= \boxed{p}
 \end{aligned}$$

2. Solve for the given variable.

$$\begin{aligned}
 g &= ca - b, \text{ solve for } a \\
 +b & \quad +b \\
 \frac{g+b}{c} &= \frac{ca}{c} \\
 \boxed{\frac{g+b}{c} = a} & \quad \text{OR} \quad \boxed{\frac{g}{c} + \frac{b}{c} = a}
 \end{aligned}$$

3. Solve and graph your answer.

$$-3 - 6(4x + 6) > -111$$



$$\begin{aligned}
 -3 - 24x - 36 &> -111 \\
 -39 - 24x &> -111 \\
 +39 & \quad +39 \\
 -24x &> -72 \\
 \frac{-24x}{-24} &> \frac{-72}{-24} \\
 \boxed{x < 18}
 \end{aligned}$$

4. Solve for the given variable.

$$u = \frac{k}{a} \text{ solve for } a$$

$$a \cdot u = \frac{k}{a} \cdot a$$

$$\frac{ua}{u} = \frac{k}{u}$$

$$\boxed{a = \frac{k}{u}}$$

5. Label each step with the property used.

Given: $3(5x + 1) = 13x + 5$

Prove: $x = 1$

$3(5x + 1) = 13x + 5$	Given
$15x + 3 = 13x + 5$	Distributive Prop
$15x(-13x) + 3 = 13x + 5(-13x)$	Subtraction Prop of =
$2x + 3 = 5$	Substitution
$2x + 3(-3) = 5(-3)$	Subtraction Prop of =
$2x = 2$	Substitution
$\frac{2}{2} = \frac{2}{2}$	Division Prop of =
$x = 1$	Substitution

6. Name the property.

a) $x + y = y + x$

Commutative

b) $100 * 0 = 0$

mult. prop. of zero

c) $15c + 15d = 15(c + d)$

distributive prop

d) *If $x + y = 3$, then $3 = x + y$*

symmetric prop

e) $6 = 6$

reflexive prop

7. Keith has \$500 in a savings account at the beginning of the summer. He wants to have at least \$200 at the end of the summer. He withdraws \$25 per week for food, clothing, and movie tickets. How many weeks can Keith withdraw money from his account?

Write an inequality to represent the situation.

$$\begin{array}{r} 500 - 25W \geq 200 \\ -500 \qquad \qquad -500 \end{array}$$

Solve.

$$\begin{array}{r} -25W \geq -300 \\ \underline{-25} \qquad \underline{-25} \end{array}$$

$$W \leq 12$$

Explain your answer.

Keith can withdraw money for 12 weeks or less to meet his goal of having at least \$200 at the end of summer.