## Algebra Review \#41 SHOW HOW YOU SOLVED EACH PROBLEM

1. 

Look at this key.


Which model correctly represents the product of $(x+3)$ and $(x+4)$ ?

A

C


B

D

2.

Which expression is equivalent to $\left(3 x^{-4}\right)^{2}\left(5 x^{-2}\right)$ ?A $\frac{30}{x^{10}}$B $30 x^{14}$c $\frac{45}{x^{10}}$D $45 x^{14}$
3.

Which property of real numbers justifies the work shown?

$$
\begin{aligned}
& 13 x-1=(12 x+15)+7 x \\
& 13 x-1=7 x+(12 x+15)
\end{aligned}
$$

NAME
4.

A system of inequalities is shown.

$$
\left\{\begin{array}{l}
y>\frac{1}{2} x+1 \\
y+3 x \leq 6
\end{array}\right.
$$

From the given points, select each point that is a solution to this system of inequalities.

| $(-1,-3)$ | $(1,2)$ |
| :--- | :--- |

5. The formula shown can be used to find $A$, the amount of money Raul has in his savings account.

Raul wants to find $r$, the rate of interest his money earns. Which equation is correctly solved for $r$ ?

$$
A=P+P r t
$$

A $r=A P t$

B $r=A-2 P t$

C $r=\frac{A}{2 P t}$
D $r=\frac{A-P}{P t}$
6.

A $x=5$
B $y=5$
C $x=7$
D $y=7$

A Commutative property of additionB Associative property of additionC Identity property of additionD Distributive property
7.

What value of $p$ will make this equation true?

$$
\frac{6 p+4}{6}=\frac{4 p-8}{3}
$$

A -10B -6C 2D 10
8.

What is the slope of the line represented by this equation?

$$
3 x+5 y=-7
$$


9. Using the ordered pairs shown, create a relation containing three ordered pairs with a domain of $\{-1,2,4\}$.

10.

This relation is an inverse variation.

$$
\{(-1,8),(4,-2),(-2,4)\}
$$

Which equation represents this relation?

A $y=-3 x+5$B $y=-2 x$C $y=-\frac{x}{8}$
D $y=\frac{-8}{x}$

