Name: Key Period: _____

QCA#3 Review

Literal Equations:

Undo O's + O

1. Solve the following equation for ***k***.

$\frac{y}{x} = \frac{kx}{x}$

$\boxed{k = \frac{y}{x}}$

1) A/S
2) M/D
3) E^n
4) (P)

2. Solve the following equation for ***y***.

Isolate means same thing

$Ax + By = C$

$-Ax \quad -Ax$

$\frac{By}{B} = \frac{C - Ax}{B}$

$\boxed{y = \frac{C - Ax}{B}}$

3. Solve the following equation for ***t***.

$\frac{I}{pr} = \frac{prt}{pr}$

$\boxed{t = \frac{I}{pr}}$

4. Solve the following equation for ***b***.

$\frac{A}{h} = \frac{bh}{h}$

$\boxed{b = \frac{A}{h}}$

5. Solve the following equation for ***h***.

$\frac{A}{b} = \frac{bh}{b}$

$\boxed{h = \frac{A}{b}}$

6. Solve the following equation for ***m***.

$\frac{k}{p} = \frac{mp}{p}$

$\boxed{m = \frac{k}{p}}$

Simplifying Expressions: 1) Distribute
2) CLT (Combine Like terms)

7. Simplify.

$3(2x-1) - 2(x-4)$

$6x - 3 - 2x + 8$

CLT

$\boxed{4x + 5}$

8. Simplify.

$5(-x+1) - (x+3)$

$-5x + 5 - x - 3$

$\boxed{-6x + 2}$

9. Simplify.

$-4(3x-1) - 3(x-2)$

$-12x + 4 - 3x + 6$

$\boxed{-15x + 10}$

10. Simplify.

$6(2x+1) - (-x-1)$

$12x + 6 + x + 1$

$\boxed{13x + 7}$

11. Simplify.

$-2(x+1)-(4x+4)$

$-2x-2-4x-4$

$\boxed{-6x-6}$

12. Simplify.

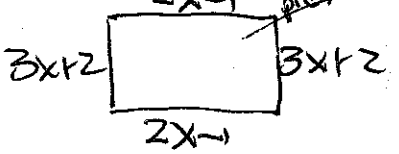
$7(2x-1)-(2x-3)$

$14x-7-2x+3$

$\boxed{12x-4}$

Applications:

13. The length of a rectangle is $2x-1$ and the width is $3x+2$. Write an expression for the perimeter and simplify.



By CLT: $\boxed{10x+2}$

using formula

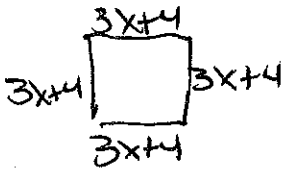
$P = 2l+2w$

$P = 2(2x-1)+2(3x+2)$

$P = 4x-2+6x+4$

$P = \boxed{10x+2}$

14. The base of a square is $3x+4$. Write an expression for the perimeter and simplify.



By picture & CLT: $\boxed{12x+16}$

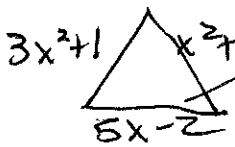
formula

$P = 4s$

$P = 4(3x+4)$

$P = \boxed{12x+16}$

15. The lengths of the sides of a triangle are represented by $(3x^2+1)$, (x^2+2x) and $(5x-2)$. What is the perimeter of the triangle?



use picture & CLT: $\boxed{4x^2+7x-1}$

Formula ADD all sides

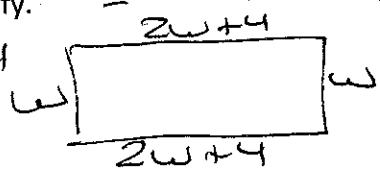
$P = s+s+s$

$P = (3x^2+1)+(x^2+2x)+(5x-2)$

$P = 4x^2+7x-1$

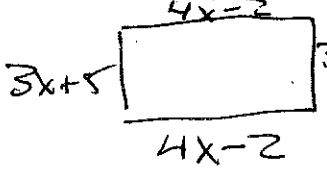
16. The length of a rectangle is four more than twice the width. Write an expression to represent the perimeter and simplify.

$l = 2w+4$



$P = \boxed{6w+8}$

17. The base of a rectangle is $4x-2$ and the height is $3x+5$. What is the perimeter of the rectangle in simplest form?



Picture & CLT: $\boxed{14x+6}$

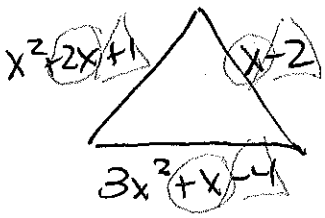
Formula

$P = 2(7x+3)$

$P = \boxed{14x+6}$

18. The lengths of the sides of a triangle are represented by $(3x^2+x-4)$, (x^2+2x+1) and $(x-2)$.

What is the perimeter of the triangle?



Picture & CLT: $\boxed{4x^2+4x-5}$

formula

$P = s+s+s$

$P = (3x^2+x-4)+(x^2+2x+1)+(x-2)$

$P = 4x^2+4x-5$