Activity
"WHAT'S THE PROBLEM "

Aim: Review Solving Word Problems involving:

- Perimeter
- Consecutive Integers
- Complex Equations
- Numbers

Name: Key
Shoulder Partner's Name: _____
Alg. 1 – H Period: _____ Date: Sept. 16

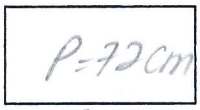
Created for you by Ms. Nhotsoubanh

Perimeter Word Problems

Consecutive Word Problems

Number Word Problems & Equations

1.) The length of a rectangle is 3 times its width. The perimeter of the rectangle is 72 centimeters. Find the dimensions of the rectangle.



ans: width = 9cm, length = 27cm

$P = 2l + 2w$

$72 = 2(3x) + 2x$

$72 = 6x + 2x$

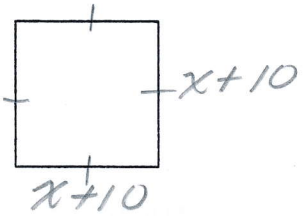
$\frac{72}{8} = \frac{8x}{8}$

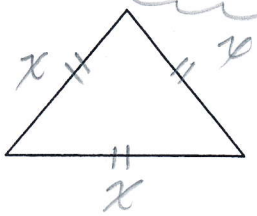
$x = 9$

$3(9) = 27$

3.) A side of a square is 10 meters longer than the side of an equilateral triangle. The perimeter of the square is 3 times the perimeter of the triangle. Find the length of each side of the triangle.

3 : 1





ans: side = 8 m

$P_{\square} = P_{\triangle}$

$4(x+10) = 3(3x)$

$4x + 40 = 9x$

$-4x \quad -4x$

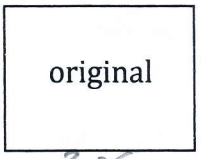
$\frac{40}{5} = \frac{5x}{5}$

$x = 8$

$4(18) = 3(24)$

$72 = 72$ ✓

2.) The length of a rectangle is three times the width. If the length is increased by 16 inches and the width is decreased by 2 inch, a new rectangle is formed whose perimeter is 124 inches. Find the dimensions of the original rectangle.



$P = 2l + 2w$

$124 = 2(3x+16) + 2(x-2)$

$124 = 6x + 32 + 2x - 4$

$124 = 8x + 28$

$-28 \quad -28$

$\frac{96}{8} = \frac{8x}{8}$

$x = 12$

$3(12) = 36$

ans: width = 12 in, length = 36 in

Perimeter Word Problems

Consecutive Word Problems

Number Word Problems & Equations

4.) Find two consecutive integers whose sum is −17.

Let 1st CI = x $= -9$

2nd CI = $x+1$ $= -8$

$x + x + 1 = -17$

$2x + 1 = -17$

$-1 \quad -1$

$\frac{2x}{2} = \frac{-18}{2}$

$x = -9$

$x + 1$

$-9 + 1$

-8

5.) Find two consecutive odd integers such that 4 times the larger is 29 more than 3 times the smaller.

Let 1st COI = x $= 21$

2nd COI = $x+2$ $= 23$

$4(x+2) = 3x + 29$

$4x + 8 = 3x + 29$

$-3x \quad -3x$

$x + 8 = 29$

$-8 \quad -8$

$x = 21$

6.) Find three consecutive even integers such that the sum of the smallest and twice the second is 20 less than the third.

Let 1st CEI = x $= -10$

2nd CEI = $x+2$ $= -8$

3rd CEI = $x+4$ $= -6$

$x + 2(x+2) = (x+4) - 20$

$x + 2x + 4 = x - 16$

$3x + 4 = x - 16$

$-x \quad -x$

$2x + 4 = -16$

$-4 \quad -4$

$\frac{2x}{2} = \frac{-20}{2}$

$x = -10$

$x+2$

$-10+2$

-8

$x+4$

$-10+4$

-6

Consecutive Word Problems

Number Word Problems & Equations

7) The second of three numbers is 8 more than the first, and the third number is 3 less than 3 times the first. If the third number is 15 more than the second, find the three numbers.

Let 1st # = x = 13

2nd # = $x+8$ $=21$

3rd # = $3x-3=36$

$(3x-3)=(x+8)+15$

$3x-3=x+23$

$-x \quad -x$

$2x-3=23$

$+3 \quad +3$

$\frac{2x}{2}=\frac{26}{2}$

$x=13$

$13+8=21$

$3(13)-3=36$

8.) The greater of two numbers is 1 more than twice the smaller. Three times the greater exceeds 5 times the smaller by 10. Find the numbers.

Let smaller # = x = 7

greater # = $2x+1=15$

$3(2x+1)=5x+10$

$6x+3=5x+10$

$-5x \quad -5x$

$x+3=10$

$-3 \quad -3$

$x=7$

$2(7)+1=15$

9.) Solve for x:

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

$9x+3+3x=8x-4+4x$

$12x+3=12x-4$

$-12x \quad -12x$

$3 \neq -4$

no solution

10.) Solve for w:

$100[0.03w+1.2=9.2+0.43w]$

$3w+120=920+43w$

$-3w \quad -3w$

$120=920+40w$

$-920 \quad -920$

$\frac{-800}{40}=\frac{40w}{40}$

$w=-20$