

Algebra I		
Mixed Review		
WS 3-4		
1) $\{5\}$	11) $\{9\}$	7) 45, 46, 47
2) $\{7, 2\}$	12) $\{10\}$	8) 27, 29, 31
3) $\{9\}$		9) 48, 50, 52
4) $\{9\}$		10) 33, 35, 37, 39
5) $\{-30\}$	1) 35	11) 30, 31, 32, 33, 34
6) $\{-60\}$	2) 40	12) 24 weeks
7) $\{40\}$	3) 84	13) 28cm x 17cm
8) $\{31\}$	4) 38	14) 36cm x 24cm
9) $\{32\}$	5) 150	15) 60cm
10) $\{5\}$	6) 36	16) 80cm

5) When one half of a number is decreased by 13, the result is 62. Find the number.

Let $x =$ the number 150

$$2\left(\frac{1}{2}x - 13\right) = 62$$

$$x - 26 = 124$$

$$x - 26 + 26 = 124 + 26$$

$$x = 150$$

6) Six less than two thirds of a number is 18. Find the number.

Let $x =$ the number 36

$$3\left(\frac{2}{3}x - 6\right) = 18$$

$$2x - 18 = 54$$

$$2x - 18 + 18 = 54 + 18$$

$$\frac{2x}{2} = \frac{72}{2}$$

$$x = 36$$

9) Find three consecutive even integers whose sum is 150.

Let $x =$ smallest
 $x+2 =$ 2nd
 $x+4 =$ largest

$$x + (x+2) + (x+4) = 150$$

$$3x + 6 = 150$$

$$3x + 6 - 6 = 150 - 6$$

$$3x = 144$$

10) Find four consecutive odd integers whose sum is 144.

Let $x =$ smallest
 $x+2 =$ 2nd
 $x+4 =$ 3rd
 $x+6 =$ largest

$$x + (x+2) + (x+4) + (x+6) = 144$$

$$4x + 12 = 144$$

13) The length of a rectangle is 11 cm more than the width. The perimeter is 90 cm. Find the length and width of the rectangle.

Let $x =$ width
 $x+11 =$ length

$$x + (x+11) + x + (x+11) = 90$$

$$4x + 22 = 90$$

$x+11$

$x \qquad \qquad \qquad x$

$x+11$

14) The width of a rectangle is 12 cm less than the length. The perimeter is 120 cm. Find the length and width of the rectangle.

15) The perimeter of a rectangle is 232 cm and the width is 56 cm. Find the length of the rectangle.

Let $x =$ length

$$x + x + 56 + 56 = 232$$

x

56 $P=232$ cm 56

x

16) The perimeter of a rectangle is 340 cm and the length is 90 cm. Find the width of the rectangle.

Mixed Review

1) $-3 + y = 2$ 2) $x - 1.2 = 6$ 3) $y + 6 = 15$ 4) $\frac{2}{3}y = 6$

5) $-15 = \frac{c}{2}$ 6) $(+\frac{1}{5}x = 12) \times 5$ 7) $31 = y - 9$ 8) $x - 15 = 16$

$x = -60$
 $\{ -60 \}$

9) $0.25y = 8$ 10) $3y + 2 = 17$ 11) $2x - 3 = 15$ 12) $3(a - 1) + 5 = 32$