

Lesson 1.1 Notes

Solve each equation.

1) $2(w - 3) + 5 = 3(w - 1)$

Distribute

$$2w - 6 + 5 = 3w - 3$$

Combine -6+5

$$2w - 1 = 3w - 3$$

$$-2w \quad -2w$$

$$-1 = w - 3$$

$$+3 \quad +3$$

$$2 = w$$

2) $3(2z + 25) - 2(z - 1) = 78$

Distribute

$$6z + 75 - 2z + 2 = 78$$

Combine 6z-2z & 75+2

$$4z + 77 = 78$$

$$-77 \quad -77$$

$$4z = 1$$

$$\frac{\quad}{4} \quad \frac{\quad}{4}$$

$$z = \frac{1}{4}$$

3) $4(2x + 7) - 6 = 3x$

Distribute

$$8x + 28 - 6 = 3x$$

Combine 28-6

$$8x + 22 = 3x$$

$$-8x \quad -8x$$

$$22 = -5x$$

$$\frac{\quad}{-5} \quad \frac{\quad}{-5}$$

$$-\frac{22}{5} = x$$

$$-4\frac{2}{5} = x$$

4) $4(k + 3) + 2 = 4.5(k + 1)$

Distribute

$$4k + 12 + 2 = 4.5k + 4.5$$

Combine 12+2

$$4k + 14 = 4.5k + 4.5$$

$$-4k \quad -4k$$

$$14 = 0.5k + 4.5$$

$$-4.5 \quad -4.5$$

$$9.5 = 0.5k$$

$$\frac{\quad}{0.5} \quad \frac{\quad}{0.5}$$

$$19 = k$$

Determine the y-value of each ordered pair based on the given x-value.

5) $y = -2x - 4$ (1,), (-2,), (0,)

$$y = -2(1) - 4$$

$$y = -2(-2) - 4$$

$$y = -2(0) - 4$$

$$y = -2 - 4$$

$$y = 4 - 4$$

$$y = 0 - 4$$

$$y = -6$$

$$y = 0$$

$$y = -4$$

$$(1, -6), (-2, 0), (0, -4)$$

6) $y = -8x + 1$ $(-8, \quad)$, $(5, \quad)$, $(-1, \quad)$

$y = -8(-8) + 1$

$y = -8(5) + 1$

$y = -8(-1) + 1$

$y = 64 + 1$

$y = -40 + 1$

$y = 8 + 1$

$y = 65$

$y = -39$

$y = 9$

$(-8, 65)$, $(5, -39)$, $(-1, 9)$

Fill in the table. Then explain how you figured out the values to put in each cell.

7) You are saving money from your paycheck every month. You already have \$100 in savings and you have committed to saving \$40 per month.

# of months	1	2	3	4	5	6	7
Amount of money saved	\$140	\$180	\$220	\$260	\$300	\$340	\$380

I started at \$100 and add \$40 times the number of months.

Graph the ordered pairs from the table on a graph.

8)

x	y
0	8
1	6
2	4
4	0
8	-4

