Chapter 8 Warm-Up

Section 8.1 Warm-Up

1. Which ordered pair is a solution to the equation $y = \frac{1}{2}x - 5$?

A (–5, 0)

B (4, –3)

C (–2, 6)

2. Which ordered pair does not belong in the table of values for $2x + y = 5$? Verify your answer.

x	*y*
2	1
–3	11
–4	3

3. On grid paper, graph the equation $y = -\frac{3}{4}x + 6$.

4. Rewrite the equation $3x - 5y = 30$ in slope-intercept form. Then, identify the slope and *y*-intercept.

5. On grid paper, graph the equation $4x - 2y + 8 = 0$.

Section 8.2 Warm-Up

1. On the same grid, graph the lines $y = -\frac{1}{3}x + 4$ and $y = -3x - 4$. Identify the point of intersection.

2. On the same grid, graph the line $y = -2$ and the line $x = 7$. Identify the point of intersection.

3. Translate each description into an algebraic expression. Use the variable *x* to represent the unknown.

a) double the boat's speed increased by 3 km/h

b) $7 less than the ticket price

c) triple a number decreased by half the number

4. Determine the rate of change for each scenario. Assume a constant rate of change.

a) Two minutes into the race you have travelled 24 ft. After 5 min, you have travelled 60 ft.

b) A line passes through the points (5, 8) and (9, 20).

c) Talking on a cell phone for 14 min costs $3.98. Talking on a cell phone for 20 min costs $4.40.

5. Identify the initial value for each scenario at time $t = 0$.

a) You run a 21-km half-marathon race.

b) Parking rates are $4 for the first 3 h, then $2 per hour.

c) Banquet hall rental is $500 plus $100 for each hour it is used.

Section 8.3 Warm-Up

1. a) On the same grid, graph all three of the following lines.

$y = 2x$

$y = 2x - 5$

$y = 2x + 4$

b) What do these lines have in common?

c) If this was a system of equations, would this system have a solution?

2. a) On the same grid, graph all three lines.

$y = -\frac{2}{3}x$

$y = -\frac{2}{3}x + 1$

$y = -\frac{2}{3}x - 4$

b) Are these lines parallel? Explain your answer.

c) Write the equation of a line that would not be parallel to any of these lines.

3. List all the integers between each pair of values.

a) 0 and 5

b) –3 and 2

c) –7 and –1

4. List five numbers between 0 and 1.

5. How many numbers lie between 0 and 1? Explain your answer.