

## Section 4.2 Exercises Part B

1. Three types of trees are in a local park. The number of aspens was 4 more than twice as many oaks, and there were 50 more maples than oaks. There are a total of 874 trees in the park. How many of each kind are there?

2. If the length is 3 more than 4 times the width of a rectangle and the perimeter is 76mm, what are the dimensions?

3. Solve.  $4(x-7) = 2x + 15$

4. Original Price: \$392.50  
Discount: 20%  
Final Price:

5. Original Price:  
Discount: 45%  
Final Price: \$73.90

6. If my vehicle can get 32 miles per gallon and fuel costs \$2.75 per gallon, how many miles per dollar do I get?

3.1

Fill out the table for each of the following:

7.  $2x + y = 9$

x	y
5	
-4	
	3
	0
	7

8.  $y = 5x + 2$

x	y
2	
0	
-1	
	0
	4

9.  $x + 4y = 9$

x	y
1	
0	
-3	
	0
	5

10.  $y = \frac{3}{7}x - 13$

x	y
	2
	5
2	
0	
	-1

Graph the following lines, and label three points.

11.  $3x + 2y = 10$

12.  $y = 2x - 7$

13.  $y = \frac{1}{2}x$

14.  $x = -6$

15.  $y = -\frac{3}{7}x - 2$

16.  $2x - 5y = 12$

17.  $y = 5$

18.  $5x + y = 6$

Find the slope between each pair of points.

Ex. (7,2) (-3,5)

$$m = \frac{5 - 2}{7 - -3} \\ = \frac{3}{10}$$

19. (5,-2) (7,3)

20. (4,1) (-5,6)

21. (5,-1) (-3,-8)

22. (7,3) (-2,3)

23. (-5,2) (4,-3)

24. (-6,1) (-6,5)

25. Explain the difference between a slope of zero and an undefined slope.

### Preparation

26. Find two points of each line and then use those points to find the slope.

$$2x - 3y = 1$$

$$y = \frac{3}{5}x + 4$$

Answers:

1. 205 Oaks, 414 Aspen,  
255 Maple

2.  $w=7$ ,  $l=31$

3.  $x = \frac{43}{2}$

4. \$314

5. \$134.36

6. 11.64 miles per dollar

7.

x	y
5	-1
-4	17
3	3
$\frac{9}{2}$	0
1	7

8.

x	y
2	12
0	2
-1	-3
$-\frac{2}{5}$	0
$\frac{2}{5}$	4

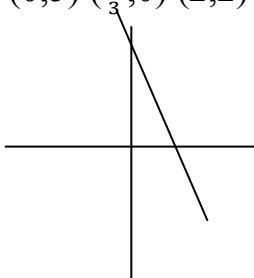
9.

x	y
1	2
0	$\frac{9}{4}$
-3	3
9	0
-11	5

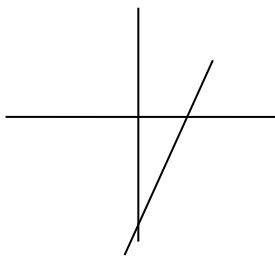
10.

x	y
35	2
42	5
2	$-\frac{85}{7}$
0	-13
28	-1

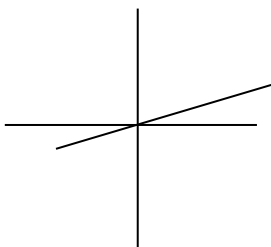
11.  $(0,5)$   $(\frac{10}{3},0)$   $(2,2)$



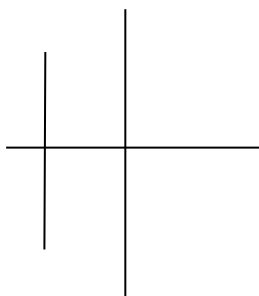
12.  $(0,-7)$   $(1,-5)$   $(2,-3)$



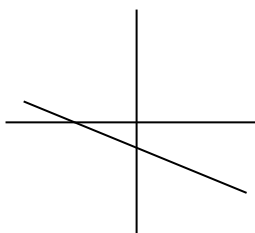
13.  $(0,0)$   $(2,1)$   $(8,4)$



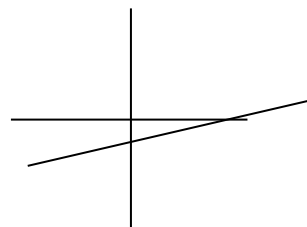
14.  $(-6,0)$   $(-6,1)$   $(-6,2)$



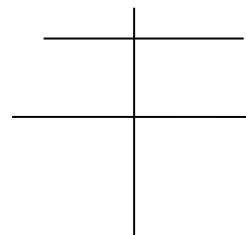
15.  $(0,-2)$   $(7,-5)$   $(-7,1)$



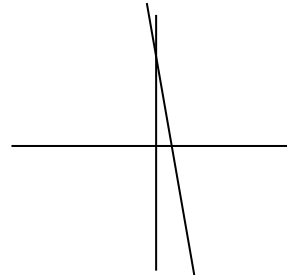
16.  $(6,0)$   $(0,-\frac{12}{5})$   $(1,-1)$



17.  $(0,5)$   $(-2,5)$   $(3,5)$



18.  $(0,6)$   $(1,1)$   $(\frac{6}{5},0)$



19.  $m = \frac{5}{2}$

20.  $m = -\frac{5}{9}$

21.  $m = \frac{7}{8}$

22.  $m = 0$

23.  $m = -\frac{5}{9}$

24.  $m = \text{undefined}$

25. Undefined is straight up and down, vertical.  
0 is horizontal, straight across

26.  $m = \frac{2}{3}$

$m = \frac{3}{5}$