Section 4.2 Exercises Part A

1. Two numbers add up to 57, and the first is 23 bigger than the second. What are the two numbers?

2. An international phone call costs 35¢ to connect and 12¢ for every minute of the call. How long can a person talk for $3.60?

3. A 52m rope is cut so that one piece is 18m longer than the other. What are the lengths of the pieces?

4. Original Price:$292.50
Discount:20%
Final Price:

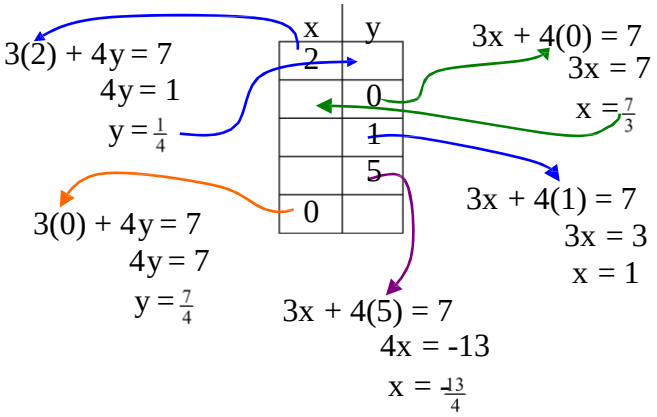
5. Original Price:
Discount: 40%
Final Price: $73.90

6. The perimeter of a rectangle is 82 cm. If the length of the rectangle is 6 more than 4 times the width, what are the dimensions of the rectangle?

4.2

Fill out the table for each of the following:

Ex. 1
3x + 4y = 7



Solution:

x	y
2	$\frac{1}{4}$
$\frac{7}{3}$	0
1	1
$-\frac{13}{4}$	5
0	$\frac{7}{4}$

7. x + y = 9

x	y
5	
-4	
	3
	0
	7

8. 2x – y = 5

x	y
2	
0	
-1	
	0
	4

9. 5x + 4y = 9

x	y
1	
0	
-3	
	0
	5

10. x–7y = 13

x	y
	1
	3
2	
0	
	-1

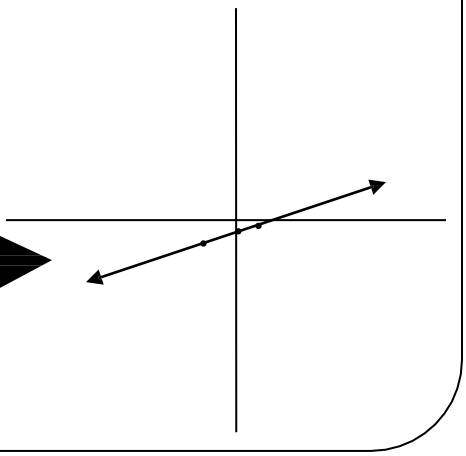
Graph the following lines, and label three points.

Example:
2x – 7y = 3

Pick three numbers to make a table (intercepts are helpful):

x	y
0	
1	
-2	

$(0,-\frac{3}{7})$ $(1,-\frac{1}{7})$ (-2,-1)



11. $3x + y = 10$

12. $y = 2x$

13. $x - 4y = 7$

14. $x = 3$

15. $y = -\frac{3}{7}x + 4$

16. $6x - 5y = 12$

17. $y = -4$

18. $5x + 2y = 6$

Preparation

19. After reading a bit of section 4.2, try to find the slope between (4,1) and (7,11).

Note: Your points may be different than the ones listed below in answers 11-18 because you may have chosen different values to use in your table; however, your line should match the answers below.

Answers:

1. 17, 40

2. 27 minutes

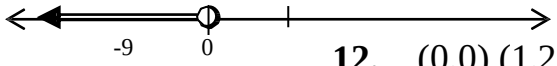
3. 17m, 35m

4. $234

5. $123.17

6. 7 cm X 34 cm

7.



x	y
5	**4**
-4	**13**
6	3
9	0
2	7

8.

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

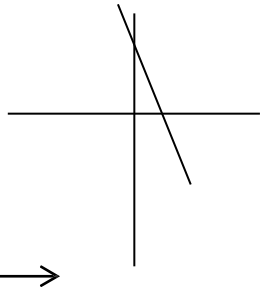
9.

x	y
1	1
0	$\frac{9}{4}$
-3	**6**
$\frac{9}{5}$	0
$-\frac{11}{5}$	5

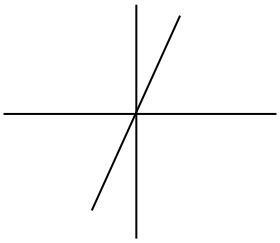
10.

x	y
20	1
34	3
2	$-\frac{11}{7}$
0	$-\frac{13}{7}$
6	-1

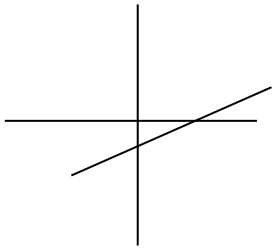
11. (0,10) (3,1) (-1,13)



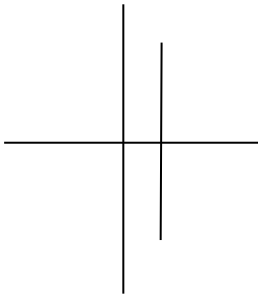
12. (0,0) (1,2) (2,4)



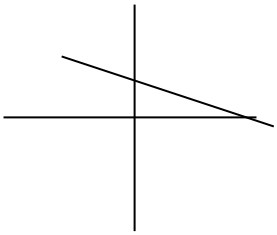
13. (7,0) (3,-1) (0, -7/4)



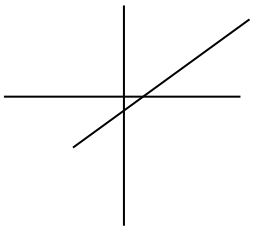
14. (3,0) (3,1) (3,2)



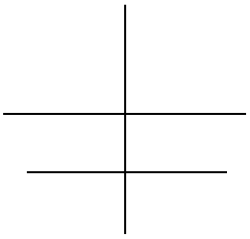
15. (0,4) (7,1) (14,-2)



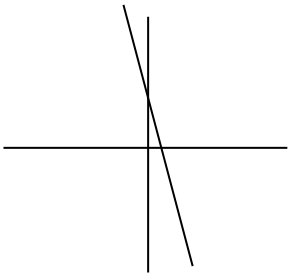
16. (2,0) (0, -5/12) (7,6)



17. (0,-4) (2,-4) (37,-4)



18. (0,3) (2,-2) (6/5 ,0)



19. m = 10/3