

Number Skills

1. Add.

- a) $3.4 + 9.7$ b) $1.3 + (-3)$
 c) $-11.3 + 3.6$ d) $-4.8 + (-12.3)$

2. Subtract.

- a) $8.8 - 15.3$ b) $17.5 - (-8.6)$
 c) $-4.5 - 6.0$ d) $-10 - (-3.3)$

3. Multiply.

- a) $(4.5)(9.2)$ b) $(6.3)(-4)$
 c) $(-10)(13)$ d) $(-7.1)(-1.5)$

Algebraic Expressions

4. Simplify.

- a) $3x + (-5x)$
 b) $9x^2 - (-10) + 3x - 2x^2$
 c) $3x^2 - 4x + 2x + 5x^2$
 d) $-5x^2 + 2x - (3x^2 - 2)$

5. Find the value of y when $x = 0$.

- a) $y = 3x^2$
 b) $y = -9x^2 + 6$
 c) $y = 6(x + 4)^2$
 d) $y = -3(x + 8)^2 - 10$

6. Find the value of y when $x = 3$.

- a) $y = -2x^2$ b) $y = 5x^2 + 2$
 c) $y = -4(x - 8)^2$ d) $y = (x + 9)^2 + 7$

7. Find the value of y when $x = -4$.

- a) $y = 12x^2$
 b) $y = -11x^2 - 7$
 c) $y = -3(x + 15)^2$
 d) $y = 9(x - 12)^2 - 20$

Linear Relations

8. Copy and complete each table of values.

a) $y = 3x - 4$

x	y
-2	
-1	
0	
1	
2	

b) $y = -0.5x + 21$

x	y
8	
12	
16	
20	
24	

9. Refer to question 8.

- a) Graph each relation.
 b) Identify the slope and the y -intercept for each graph.

10. Copy and complete each table. Find the first differences for each set of data.

a)

x	y	First Differences
3	8	
4	15	
5	23	
6	31	
7	39	

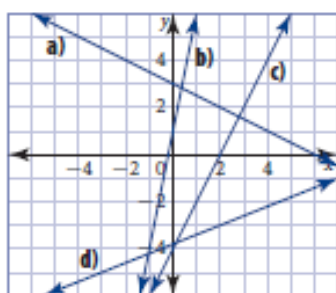
b)

x	y	First Differences
13	0	
14	1	
15	4	
16	9	
17	16	

c)

x	y	First Differences
-5	3	
-4	3	
-3	3	
-2	3	
-1	3	

11. Identify the slope and the y-intercept of each line.



Transformations

12. Describe a transformation that would move each red figure onto its image.

