Name: _____   Date: _____

Prerequisite Skills

Real Numbers

1. Add.
a) $6.2 + 4.9$ b) $3.8 + (-6.5)$
c) $-5.7 + (-3.3)$ d) $-12.5 + (-7.7)$

2. Subtract.
a) $9.5 - 7.8$ b) $-6.9 - 3.8$
c) $-13 - (-6.5)$ d) $19.3 - (-5.8)$

3. Multiply.
a) $(3.8)(2.5)$ b) $(6.9)(-3)$
c) $(-8)(12)$ d) $(-9.1)(-3.5)$

Algebraic Expressions

4. Simplify.
a) $-9x - (-6x)$
b) $3x^2 - (-5) + 6x - 9x^2$
c) $13x^2 - (3x^2 + 2x) - (-6)$
d) $-6x^2 + 5x - (6x^2 - 5x + 6)$

5. Find the value of y when $x = 0$.
a) $y = 6x^2 + 5$ b) $y = -3x^2$
c) $y = 3(x - 2)^2$ d) $y = -5(x + 1)^2 + 3$

6. Find the value of y when $x = 2$.
a) $y = -5x^2$ b) $y = -3(x + 1)^2 + 1$
c) $y = 4x^2 - 6$ d) $y = 3(x - 7)^2 + 5$

7. Find the value of y when $x = -2$.
a) $y = 3x^2$
b) $y = -2x^2 - 5$
c) $y = -4(x - 2)^2 + 1$
d) $y = 3(x + 4)^2 - 15$

Linear Relations

8. Complete each table.

a)

x	$y = -4x - 6$
–2	
–1	
0	
1	
2	

b)

x	$y = -\dfrac{1}{3}x + 10$
–6	
–3	
0	
3	
6	

9. Refer to question 8,
a) Graph each relation.
b) Identify the slope and the y-intercept for each relation.

10. Complete each table.

x	y	First Differences
0	3	
2	7	
4	11	
6	15	
8	19	

x	y	First Differences
0	0	
1	1	
2	8	
3	27	
4	64	

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

a)

b)

c)

d)
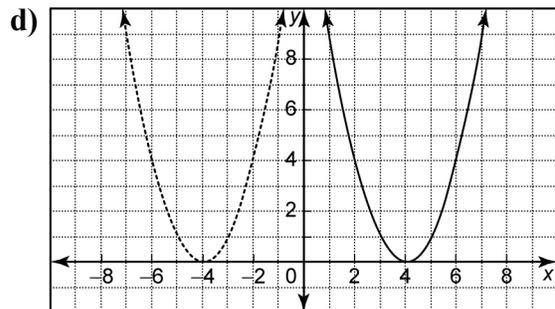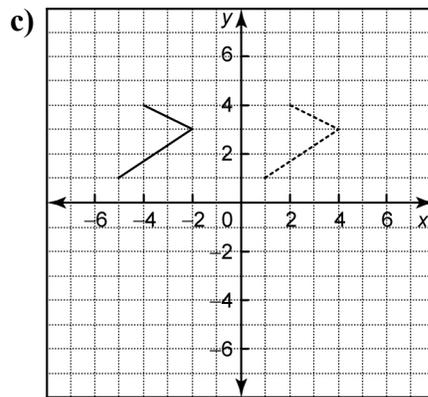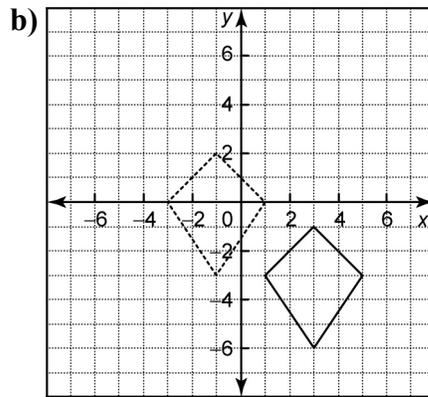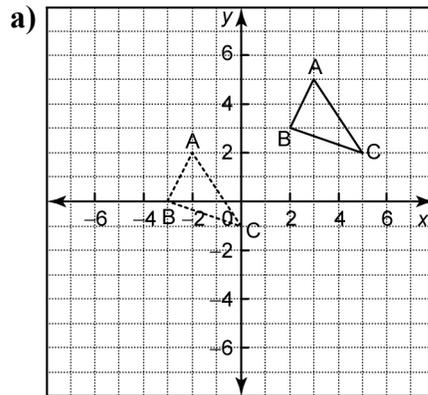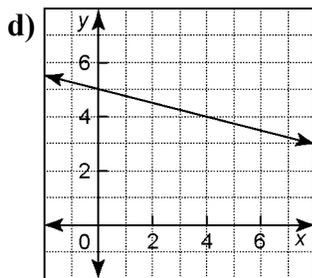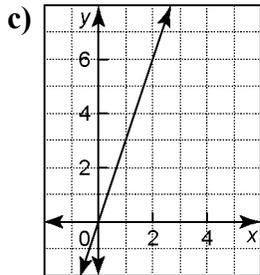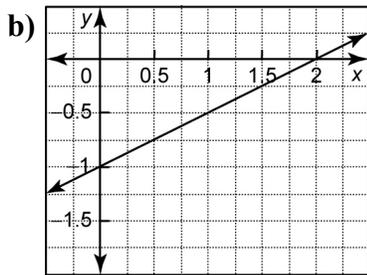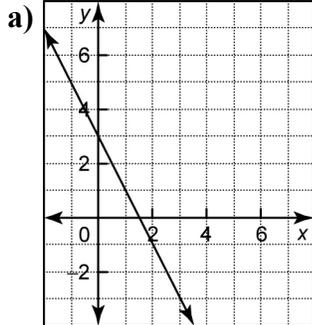
Transformations

12. Describe the transformation that would move each solid figure onto its dotted image.

a)

b)

c)

d)