Course 3

Section 10 – Quizzes

(Lessons 91 thru 100)

Name: _____

Teacher: _____

Lesson 91 – Review Quiz

1. a. Find the surface area and volume of a 3-inch cube and a 9-inch cube.

b. What is the ratio of their surface areas? _____

c. What is the ratio of their volumes? _____

2. If you know the diameters of two circles, how can you find the ratio of their areas?

Expand:

1. $(x + 2)(x + 7)$

2. $(x + 5)(x + 2)$

3. $(x - 3)(x + 1)$

4. $(x - 2)(x + 2)$

5. $(x - 4)(x + 3)$

6. $(5 + 3)(5 - 2)$

Lesson 93 – Review Quiz

Solve and check both solutions to each quadratic equation.

1. $2x^2 + 3 = 5$

2. $-5x^2 + 10 = -20$

3. $\frac{8}{x} = \frac{x}{2}$

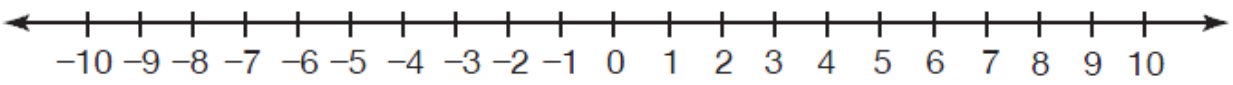
4. $3x^2 + 3 = 39$

5. $\frac{x}{6} = \frac{2}{x}$

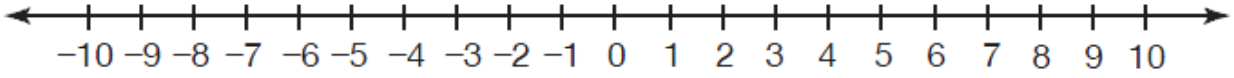
6. $-7x^2 + 5 = -9$

Graph these inequalities on a number line.

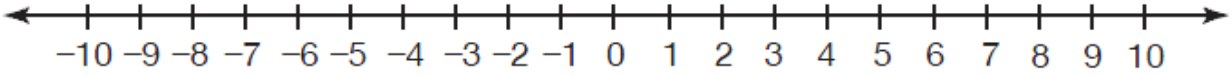
1. $-5 < x < 6$



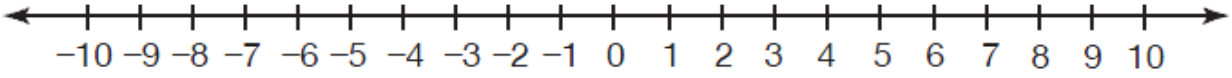
2. $2 \leq x < 7$



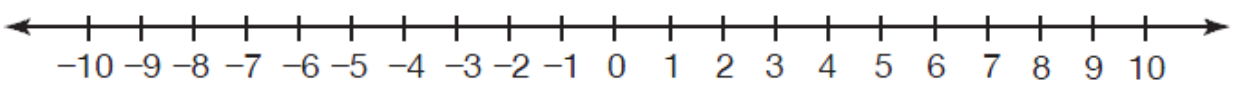
3. $x \leq -6$ or $x \geq 6$



4. $x < 1$ or $x > 3$



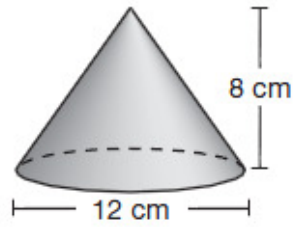
5. $0 < x \leq 7$



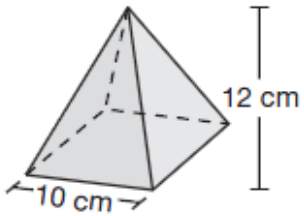
Lesson 95 – Review Quiz

1. Find the slant height of the following figures. Leave irrational numbers in radical form.

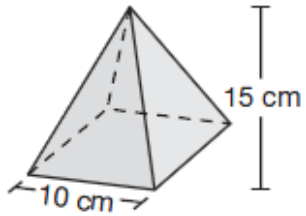
a.



b.



c.

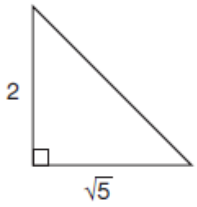


2. Compared to the height of a cone, the slant height of a cone is _____

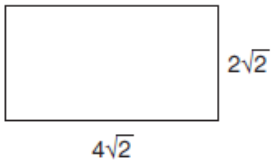
A. shorter **B.** the same **C.** longer

Lesson 96 – Review Quiz

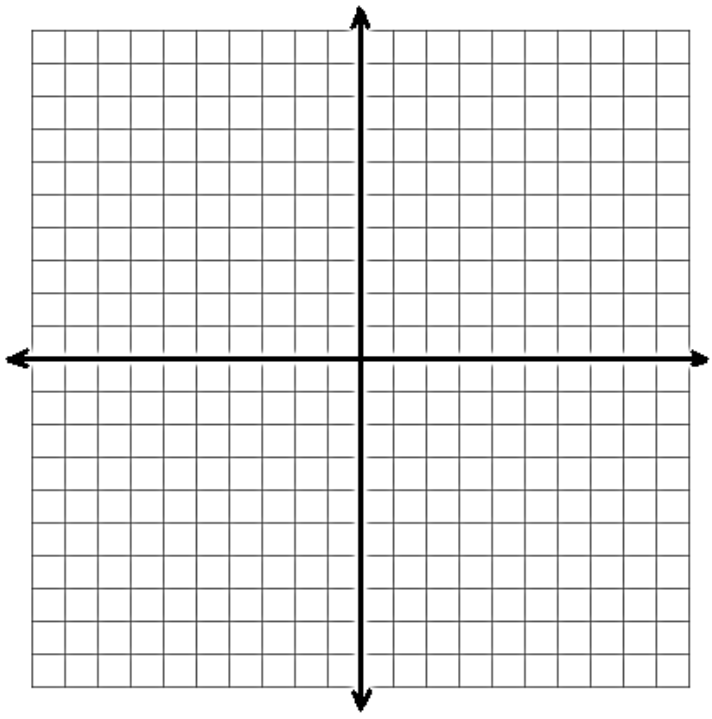
1. Find the perimeter of the triangle.



2. Find the perimeter and the area of the rectangle.



3. Find the perimeter and area of a square with vertices at (3, 0) (0, 3) (−3, 0) (0, −3).



Lesson 97 – Review Quiz

1. Write a recursive formula for the following sequence: 1, 5, 25, 125, . . .

2. Write a recursive formula for the following sequence: 2, 4, 6, 8, . . .

3. Which formula below generates the terms of the following sequence? _____

2, 5, 11, 23, . . .

A. $\begin{cases} a_1 = 2 \\ a_n = a_{n-1} + 5 \end{cases}$ **B.** $\begin{cases} a_1 = 2 \\ a_n = 2a_{n-1} + 1 \end{cases}$ **C.** $\begin{cases} a_1 = 2 \\ a_n = a_{n-1} + 1 \end{cases}$

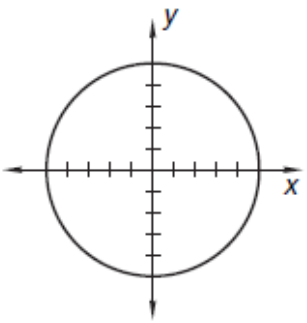
4. The terms of the following sequence are generated with the formula $a_n = 4n - 1$. Write a recursive formula for this sequence: 3, 7, 11, 15, . . .

Lesson 98 – Review Quiz

State whether each graph or table is a function.

1.

x	y
–5	0
0	5
5	0
0	–5



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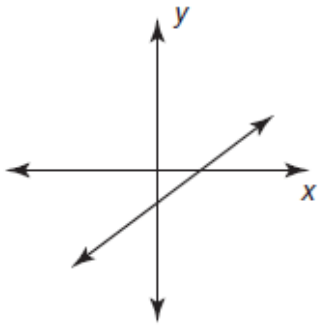
2.



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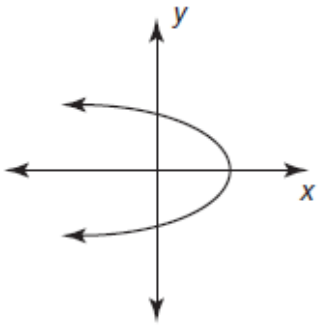
3.



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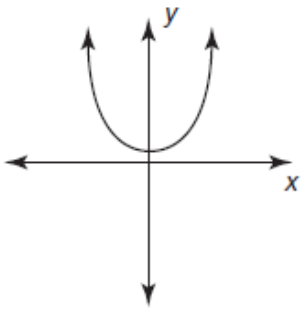
4.



_____

5.

x	y
4	6
3	7
2	8
1	9
0	10

_____

6.

x	y
2	1
3	2
4	3
3	4
2	5

_____

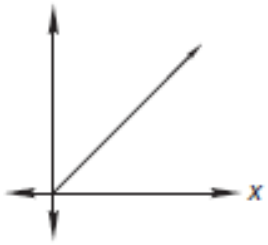
Lesson 99 – Review Quiz

1. Describe each equation or graph in a–d as inverse variation or direct variation.

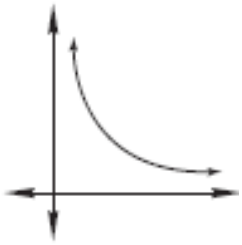
a. $\frac{y}{x} = k$

b. $x \cdot y = k$

c.



d.



2. Determine if the variables in tables a and b are inversely proportional and explain how you made that determination.

a.

x	y
2	4
3	1
4	3

_____

_____

_____

b.

x	y
2	4
1	8
4	2

_____

_____

_____

Lesson 100 – Review Quiz

1. Find the lateral surface area of a square pyramid with base sides of 4 inches long and a slant height of 5 inches?

2. What is the total surface area of the square pyramid described in Exercise 1?

3. Find the lateral surface area of a cone with a diameter of 10 cm and a slant height of 16 cm. Express your answer in terms of π.

4. Find the lateral surface area of a right pyramid with a slant height of 10 cm and a regular octagonal base with sides 6 cm long.