Course 3

Section 9 – Quizzes

(Lessons 81 thru 90)

Name: _____

Teacher: _____

Lesson 81 – Review Quiz

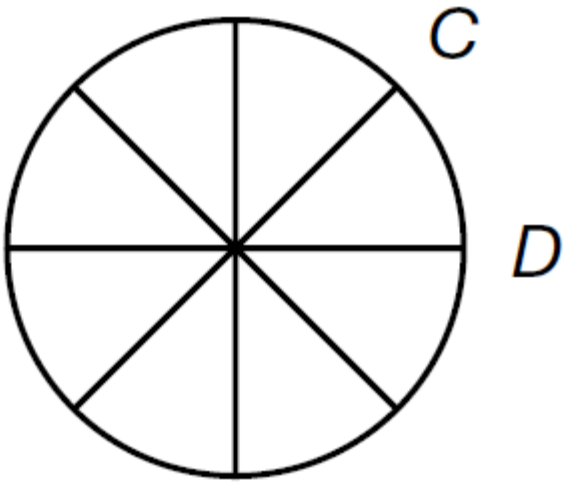
For questions 1 through 4, refer to the figure.

1. A circle is divided into eighths. What is the measure of each acute central angle?

2. What is the measure of arc *CD*?

3. What is the measure of major arc *CD*?

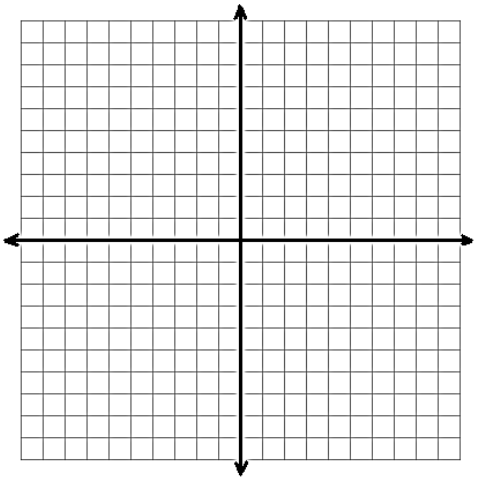
4. If the diameter of the circle is 20 cm, what is the length of arc *CD*? Use 3.14 for π. Describe the steps you followed to solve the problem.



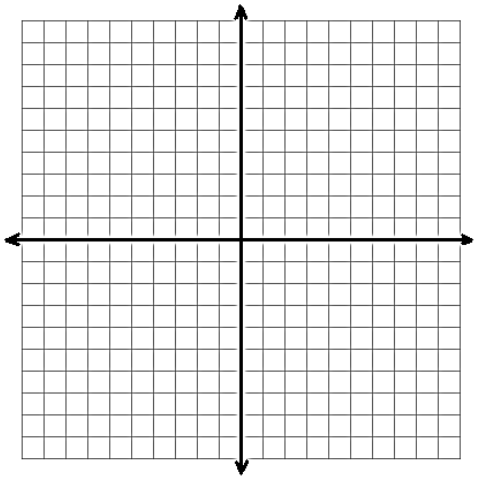
Lesson 82 – Review Quiz

Find the x- and y-intercepts of the following equations, then graph them.

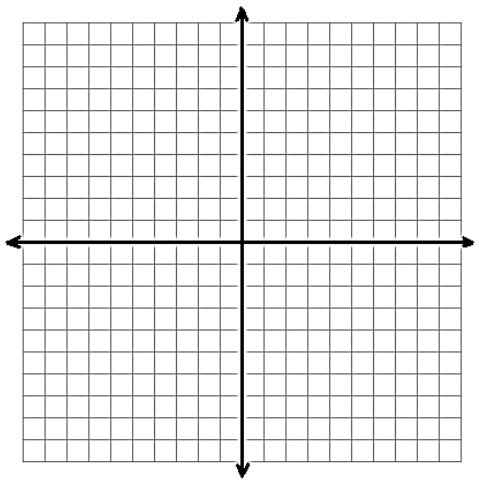
1. $2x + y + 8$



2. $-x + 3y + 6$



3. Tanisha is thinking of two numbers. The sum of the numbers is 5. If the lesser number is subtracted from the greater number, the result is 7. Graph this system of equations to find the two numbers.



Lesson 83 – Review Quiz

1. If a spinner is spun twice, are the events independent or not independent? Justify your answer.

2. Four different cards lettered *A, B, C,* and *D* are face down on a table with the order scrambled. As a card is turned over it is placed letter-side up. Find these probabilities.

   a. Turning over the *A* card first.

   b. Turning over *A*, then *B*.

   c. Turning over *A*, then *B*, then *C*.

   d. Turning over *A*, then *B*, then *C*, then *D*.

3. The four letter cards in question 2 are face down on the table. Michelle turns over one card and find that it is *A*. If she turns over the remaining cards one at a time, what is the probability that she turns them over in alphabetical order?

4. Recall that the probabilities of an event and its complement total 1. In a bag are six marbles: 3 red, 2 white, and 1 blue. Three marbles are drawn one at a time without replacement. What is the probability of drawing red, then white, then blue? What is the probability of not drawing red, then white, then blue?

5. Gerry's drawer has two black socks and four blue socks. If he selects two socks without looking, what is the probability they are both black?

Lesson 84 – Review Quiz

1. Find 20% of $\frac{1}{4}$ of \$12.00.

2. Find $33\frac{1}{3}$ % of $\frac{3}{8}$ of \$12.00.

3. To find 80% of \$21.50, would you convert 80% to a fraction or a decimal? Why?

4. To find 25% of \$24.00, would you convert 25% to a fraction or decimal? Why?

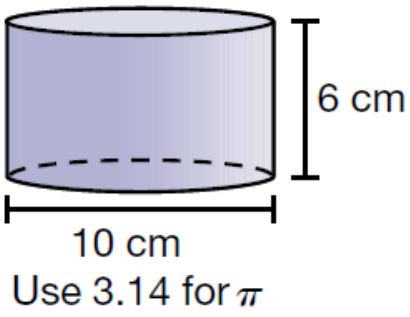
5. Which expression is the most appropriate rational number to announce a discount of \$14 from a regular price of \$40.00?

   A. save $\frac{7}{20}$ B. save 0.35 C. save 35%

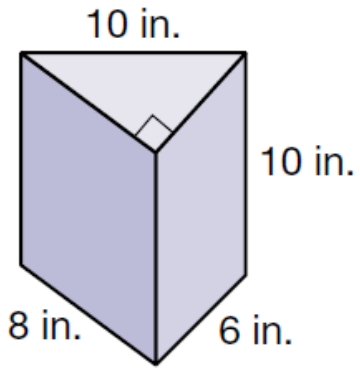
Lesson 85 – Review Quiz

Find the total surface area of these figures.

1.



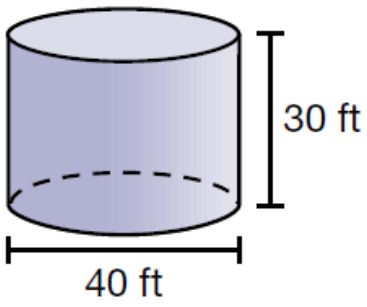
2.



3. What is the lateral surface area of the cylinder in question **1?**

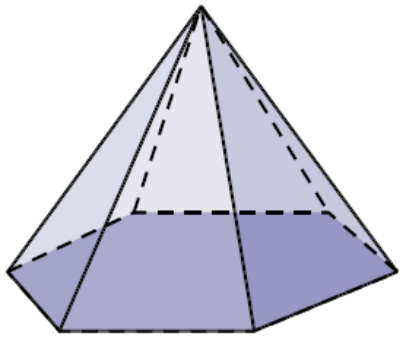
4. What is the lateral surface area of the triangular prism in question **2?**

5. Find the lateral surface area of 30-ft-high water tower with a 40 ft diameter. Use 3.14 for π.

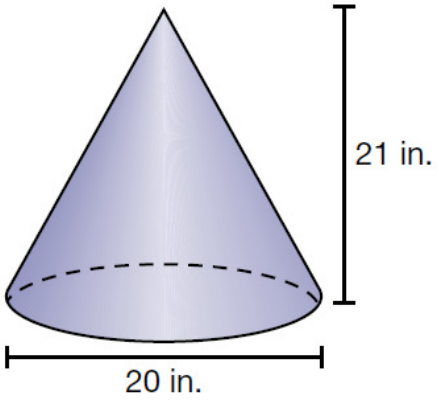


Lesson 86 – Review Quiz

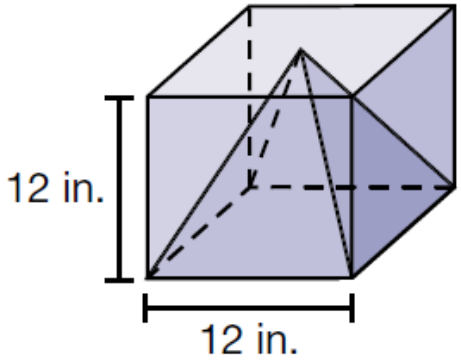
1. The area of the hexagonal base of a pyramid is $18\sqrt{3}$. The height of the pyramid is 12. What is the volume?



2. The diameter of the base of the cone is 20 inches. The height is 21 inches. What is the volume of the cone? Express the answer in terms of π and again rounded to the nearest cubic inch.



3. Using a 12-inch cube of clay. Lucian makes a 12-inch high pyramid with a 12-inch square base. What is the volume of the pyramid. Does Lucian have enough clay from the original cube to make another pyramid the same size as the first?



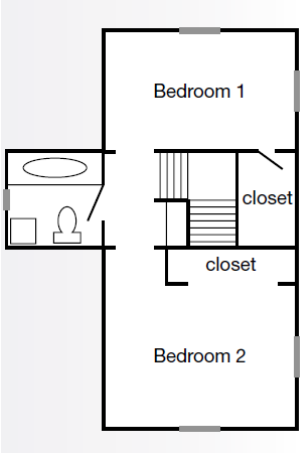
Lesson 87 – Review Quiz

1. A map is drawn with a scale of 1 inch = 8 miles. Two towns $2\frac{3}{4}$ inches apart on the map are how many miles apart?

2. Mariah is making a scale drawing of her apartment. Her apartment measure 36 feet long and 30 feet wide. She wants the drawing to fit on an 8.5 in.-by-11 in. piece of paper. Which of the following would be a good scale for Mariah to use? Why?

   A. 1 in. = 2 ft B. 1 in. = 3 ft C. 1 in. = 4 ft D. 1 in. = 6 ft

3. Refer to the floor plan to find the actual length and width of Bedroom 1, excluding the closet.



(1 inch = 16 feet)

Lesson 88 – Review Quiz

1. In a proportional relationship, there are how many variables? The graph of the relationship is what shape? When one variable is zero, what number is the other variable?

2. An equation in the form of $y = kx$ indicates a direct proportion. As x change by 1, y changes by a constant factor, k. Which of these equations indicates a direct proportion.

   A $y = 5 + x$ **B** $P = 4s$ **C** $A = bh$

3. The equation $y = kx$ transforms to $\frac{y}{x} = k$, which means that the ratio of y to x is constant. If $\frac{y}{x} = 3$, then which pair of numbers does not fit the relationship.

   A (4, 12) **B** (6, 18) **C** (9, 3)

4. Which of the following is not an example of a proportional relationship?

   A. Distance and time when driving at a constant speed

   B. Quantity and price when the unit price remains the same

   C. Hours awake and hours asleep when the number of hours in a day remains the same.

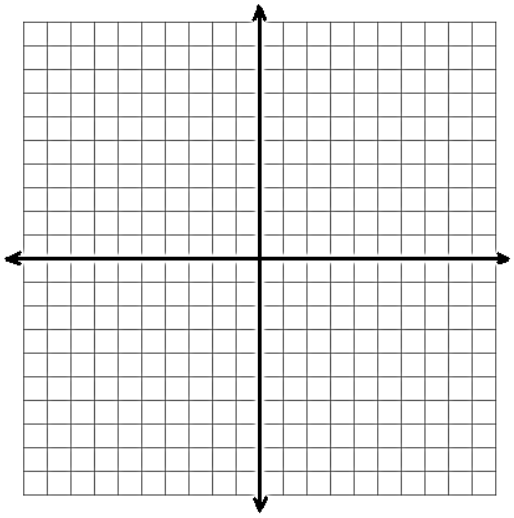
5. Which equation is an example of a proportional relationship?

   A $d = 30t$ **B** $A = s^2$ **C** $P = 2l + 2w$

Lesson 89 – Review Quiz

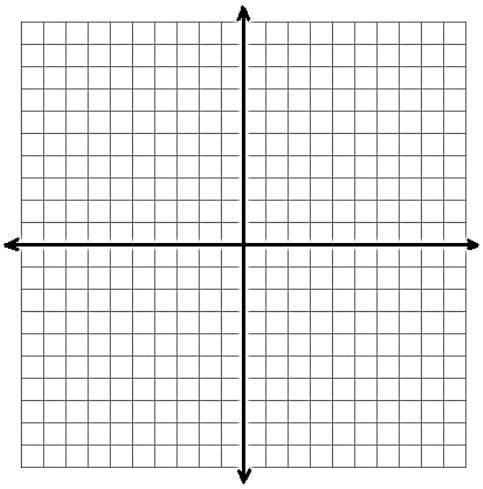
1. Together Xena and Yolanda have $12.00. Yolanda has 6 dollars more than Xena. How much money does each person have? Graph this system of equations to find the answer.

$$\begin{cases} x + 7 = 12 \\ y = x + 6 \end{cases}$$



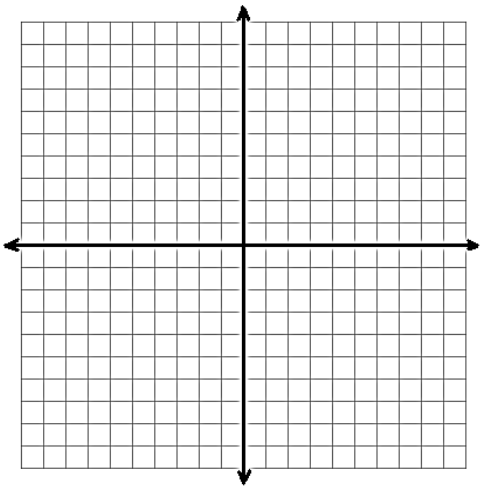
2. Nikki is thinking of two numbers. Their sum is 12. The greater number is double the lesser number. What are the two numbers? Graph this system of equations to find the answer.

$$\begin{cases} x + y = 12 \\ y = 2x \end{cases}$$



3. Use inspection to predict the solutions to this system of equations. Then graph the equations to verify your prediction.

$$\begin{cases} x + y = 6 \\ y = x \end{cases}$$



Lesson 90 – Review Quiz

Indicate if the number is an element of the set of integers.

1. -1 2. 2 3. $\sqrt{3}$

Use the subset symbol to show the relationship between A and B

4. A = {all triangles}; B = {all polygons}

5. A = $\mathbb{R}$; B = $\mathbb{Q}$

6. A = {vowels}; B = {letters in the alphabet}

Use a Venn Diagram to illustrate the relationship between the sets. Find A ∩ B.

7. A = {3, 6, 9, 12}

   B = {5, 12, 15, 20}

8. A = {all parallelograms}

   B = {all trapezoids}

Use a Venn Diagram to illustrate the relationship between the sets. Then indicate the union of the sets.

7. {10, 20, 30} ∪ {20, 30, 40}

8. {2, 4, 6, 8, . . .} ∪ {4, 8, 12, …}