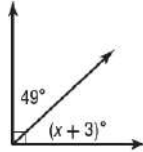


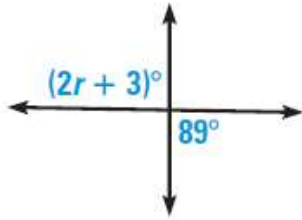
Math 7: Study Guide PART 2

1. What is the solution to the equation $6(x + 2) = -24$?

2. What is the measure of x in the figure?



3. What is the value of x in the figure?



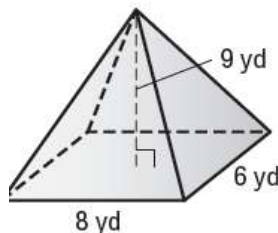
4. A triangle has angle measures of 90° , 45° , and 45° . The triangle has two congruent sides. Classify the triangle by its angles and sides.

5. What is the scale factor of a drawing if the scale is 1 inch = 5 feet?

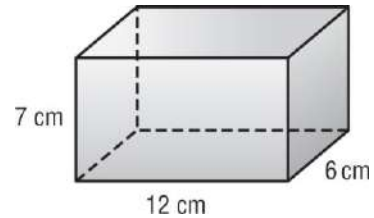
6. If Michelle rollerblades around a circular track with a radius of 60 meters, how far does she skate? Use 3.14 for pi. Round to the nearest tenth.

7. A large pizza at Angelo's Pizzeria has a diameter of 16 inches. What is the area of the pizza? Use 3.14 for pi. Round to the nearest tenth.

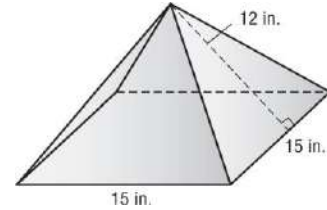
8. What is the volume of the pyramid shown?



9. What is the surface area of the rectangular prism shown?



10. The square pyramid has base side lengths of 15 centimeters and a slant height of 12 centimeters. What is the total surface area of the pyramid?



11. A jar contains 5 pennies, 8 nickels, 7 dimes, and 5 quarters. If a coin is selected at random, what is the probability of selecting a penny?

12. Find the number of possible outcomes of tossing a penny four times.

13. A computer store builds custom computers by allowing customers to choose 1 of 6 different CPUs, 1 of 7 hard drives, and 1 of 4 video cards. How many different computers are possible?

14. In an obstacle course race, how many ways can six finalists be ordered?

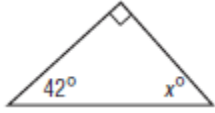
15. Which of the following represents two dependent events?

- a. Picking a marble from a bag, replacing it, and picking another marble
- b. rolling a number cube and flipping a coin
- c. picking a marble from a bag, not replacing it, and picking another marble
- d. flipping a coin twice

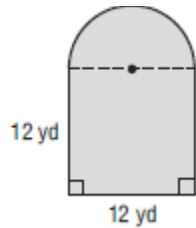
Section 2: Short Answer **SHOW ALL WORK FOR CREDIT**

16. What is the solution to the equation $6x + 22 = -2$?

17. Write and solve an equation to find the missing measure.



18. Find the area of the figure. Use 3.14 for pi. Round to the nearest tenth.



19. Ronaldo rolled a number cube 50 times. During these trials he rolled the number 5 a total of 11 times. Based on these trials, what is the probability of rolling a 5? Does this represent a theoretical or experimental probability? Explain.

20. What is the probability of tossing a penny and landing on tails four times in a row? Write your answer as a fraction, decimal, and percent.

Section 3: Open-Ended **SHOW ALL WORK FOR CREDIT**

21. Complete all parts.

a. What operation should be performed **first** to solve the inequality $-9x - 4 > -22$?

b. Solve the inequality.

c. Graph the solution to the inequality.

