**Directions:** Circle the best answer(s) for each question. Most questions will have more than one answer.

1. Which problem(s) can be solved with the Pythagorean Theorem?

 A. Two points are connected on a coordinate grid to form a diagonal line segment. Austin wants to

 know the length of the line segment.

 B. Mrs. Rauvola drew a right triangle on the board. She listed one side length as 4 inches and one side

 length as 5 inches. She asks the class to calculate the length of the 3rd side.

 C. Gavin's school is due west of his house and due south of his friend Tori's house. The distance between the school and Tori's house is 6 miles and the straight-line distance between Gavin's house and Tori's house is 10 miles. How far is Gavin's house from school?

2. What is the purpose(s) of a line of best fit on a scatterplot?

 A. The purpose of a line of best fit on a scatterplot is to connect all of the points.

 B. The purpose of a line of best fit on a scatterplot is to show the trend in a data set.

 C. A line of best fit is used to make predictions related to the data.

3. What are the differences between similar figures and congruent figures?

 A. Similar figures are the exact same size and shape.

 B. Similar figures are the same shape but different sizes.

 C. Congruent figures are exactly the same size and shape.

4. Which sentence uses the word outlier incorrectly?

 A. Janet’s quiz score of 26% was an outlier; in her class, the other students’ scores were all above 70%.

 B. The average temperature this month was 35 degrees, so 72 was a definite outlier in the data set.

 C. Like every other student in his math class, Matt earned a C on the last quiz; so his score was an

 outlier in the scores.

5. What is the purpose of scientific notation?

 A. The purpose of scientific notation is to write numbers in a more scientific form.

 B. The purpose of scientific notation is to write very small and very large numbers in a shorter

 form.

 C. The purpose of scientific notation is to make science more complicated for students.

6. How are rational and irrational numbers different? Circle all of the correct answers.

 A. Irrational numbers repeat and terminate. Some numbers that are irrational are ½ , -10, and 0.2.

 B. Rational numbers can be written in fraction form.

 C. Rational numbers include repeating and terminating decimals.

 D. Irrational numbers do not repeat and do not terminate (end). They cannot be written as fractions.

 E. The numbers ½, 0, and .33333… are rational. The number 0.823456…… and π are irrational.