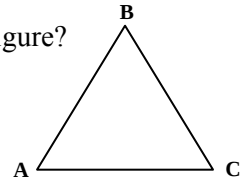
Lines, Angles, and Figures
Worksheet 3

Choice *E*, in multiple-choice questions, is always: *I request help from the teacher*.

You may mark E in addition to one other choice if you think that you have the right answer to the question but you do not feel that you have a complete understanding of the problem.

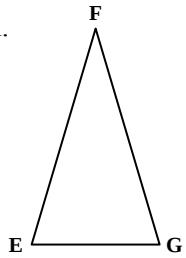
Your teacher will decide whether to use the two-point or four-point scoring rubric for problems that use numbers, pictures, or words to justify/explain your answer(s). You may request help for these questions, too. Write the word "teacher" by your answer(s).

1. Triangle ABC is shown. What is the sum of the interior angles of this figure?



A. 90º C. 270º
B. 180º D. 360º
E. Teacher

2. In triangle EFG, the length of EF is equal to the length of FG. GE is a different length. Triangle EFG is which type of triangle?

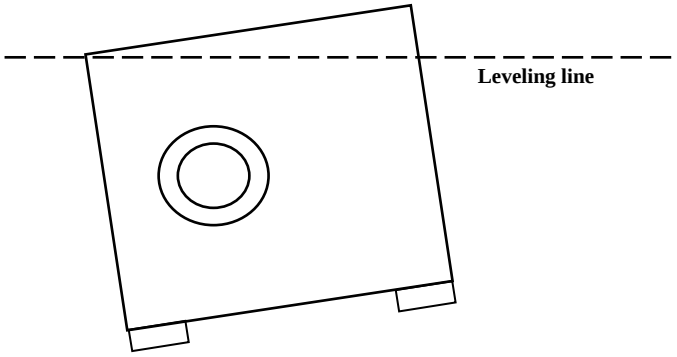


A. right equilateral triangle C. right isosceles triangle
B. acute equilateral triangle D. acute isosceles triangle
E. Teacher

3. A classroom is a rectangular prism. Which term best describes the relationship between the plane represented by the floor of a classroom and the plane represented by its front wall?

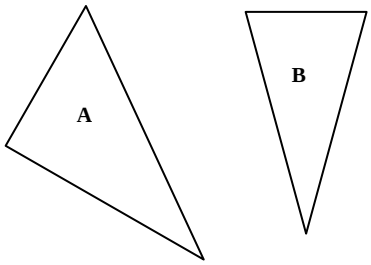
A. parallel B. perpendicular C. skewed D. vertical E. Teacher

4. Carter wants to project his PowerPoint presentation but the image is crooked. The diagram shows that the projector is not level. Using a protractor, how many degrees must Carter lower the higher side of the project to make the top of the projector level with the leveling line?



A. 170 degrees
B. 10 degrees
C. 15 degrees
D. 165 degrees
E. Teacher

5. Compare the sides and angles of the two triangles. Describe two ways in which these triangles are different. Use words to explain your answers.



6. Carter's rectangular backyard is 20 meters wide and 50 meters long. He takes a diagonal shortcut through the yard each day on his way to Etna High.

   a. How long is Carter's diagonal shortcut?
   b. Round the answer to the nearest whole number.
   c. Use numbers, words, or pictures to explain your answer.

7. Parallelogram EFGH (not shown) has the dimensions 4 meters wide by 6 meters high. Parallelogram WXYZ is similar and its width is 12 meters. What is the height of parallelogram WXYZ? Use numbers, words, or pictures to explain your answer.

8. Two of the interior angles of triangle KLM measure 42° and 57°. What is the measure of the third angle of triangle KLM? Use numbers, words, or pictures to explain your answer.

9. Which statement is a characteristic of all parallelograms?

   A. Adjacent sides are congruent.
   B. Adjacent sides are perpendicular.
   C. Opposite angles are congruent.
   D. Opposite angles are supplementary.
   E. Teacher