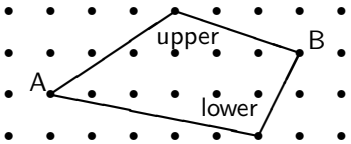
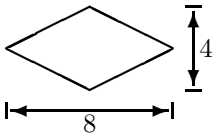
Perimeter and Right Triangle Problems – Version C

Name:_____

1. Which way, the upper or lower, is the shortest way to get from A to B?



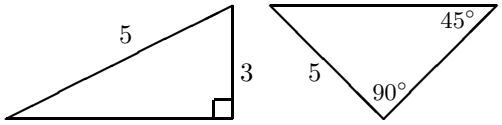
2. The rhombus pictured has a long diameter of 8 units and a short diameter of 4 units.

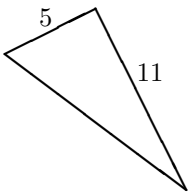


   (a) Find the area of the rhombus.

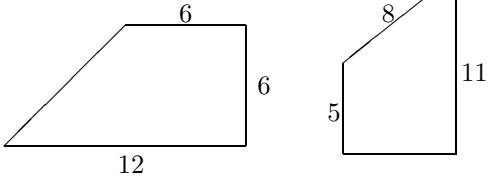
   (b) Find the perimeter of the rhombus.

3. Find the lengths of the unmarked sides of these right triangles:

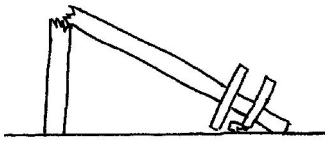




4. Find the perimeters of these figures. Express your answer as a square root and as a decimal.



5. An electric pole was broken in a tornado as shown.



   It measures 10 feet from the base to where it broke. If the distance along the ground between the base and where the tip touches the ground is 40 feet, how tall was the pole originally?

   Express your answer two ways: as a square root and as a decimal.

6. MATH COUNTS A triangle has sides whose lengths are 10, 23 and 27 units. The perimeter of a square is 60% of the triangle's perimeter. What is the area of the square?

7. On the dotpaper below, draw and label a line segment which

   (a) has a length of $\sqrt{5}$,

   (b) has a length of $\sqrt{10}$.

   (c) has a length of $\sqrt{34}$.

   Can you draw a line segment which has length $\sqrt{7}$? Either show an example above or explain why this is not possible.