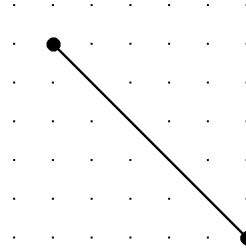
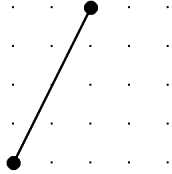


**Geometry Test 3 Mr. Holcomb 2008/2009**  
Favorite cookie \_\_\_\_\_

**Problem**

1. (8 points) Find the lengths of the segment.

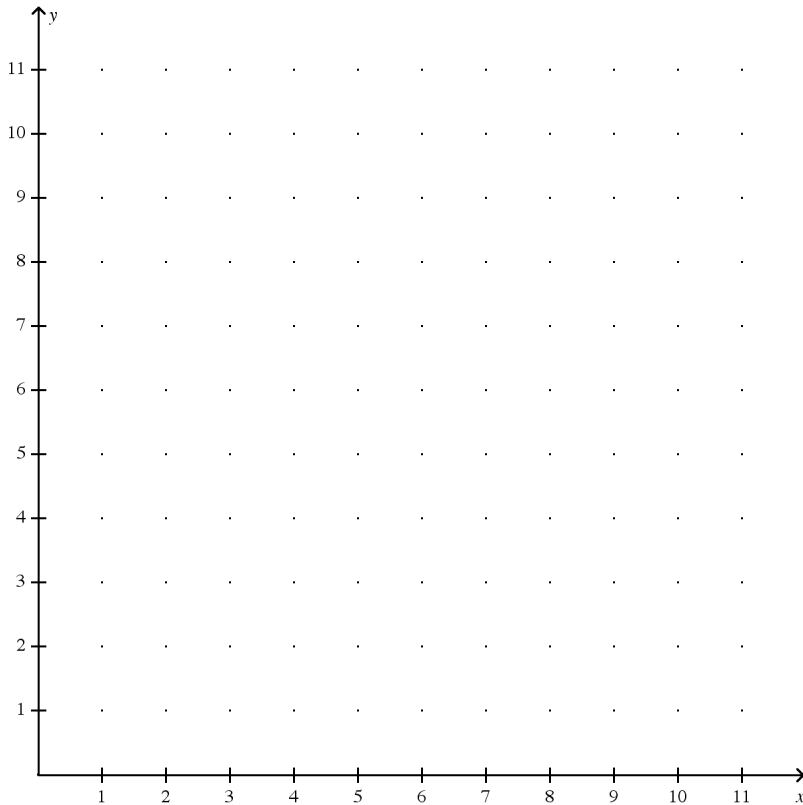


2. (10 points) Find the equation of the line that passes through the points  $(-7,9)$  and  $(-5,3)$ . Justify with clear and complete work.

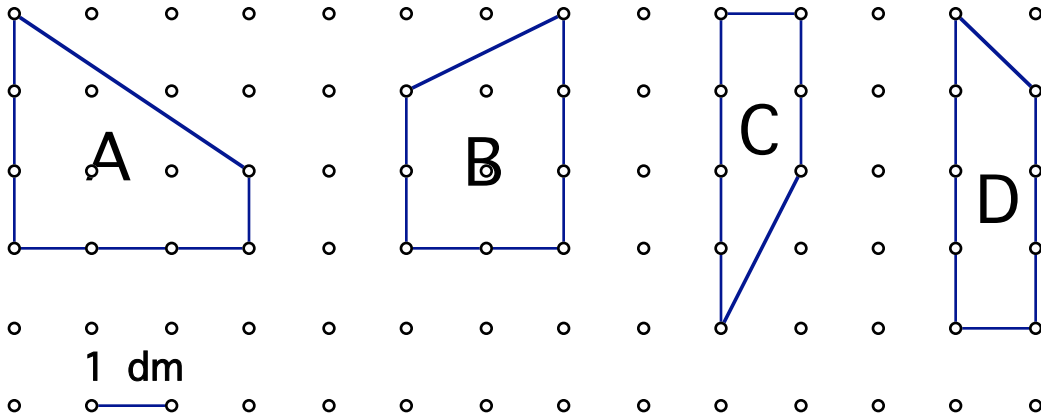
3. (10 points) What is the Pythagorean theorem and what does it mean? (You do not have to show why it works.)

**Model Drawing Problem.**

- 1) Read the problem completely.
  - 2) Draw a model. Label the model with the given information. Remember “Recipe Reading”. (4 points)
  - 3) Define a base unit. (2 points)
  - 4) Place your “?”. (2 points)
  - 5) Work your computation. (2 points)
  - 6) Write a complete sentence to answer the question. (2 points)
4. (14 points) The  $x$  and  $y$  coordinates of all points in this problem are integers. Points  $A$ ,  $B$ , and  $C$  are collinear. Point  $C$  is the midpoint of  $\overline{AB}$ . The  $x$ -coordinate of point  $B$  is 8 and the location of point  $A$  is  $(2,2)$ . Lastly, point  $B$  is  $\sqrt{52}$  units away from point  $A$ . What is the length of  $\overline{CB}$  **and** where is point  $C$  located?



5. (12 points) Use the clues



What is the exact length of each path?

A \_\_\_\_\_ B \_\_\_\_\_ C \_\_\_\_\_ D \_\_\_\_\_

Now decide which person walked which path.

Sammi walked more than 9 dm.

Joe and Karen walked the same distance.

The area of the path that Karen walked is the smallest.

Avery's is not the longest path.

Sammi \_\_\_\_\_

Avery \_\_\_\_\_

Karen \_\_\_\_\_

Joe \_\_\_\_\_