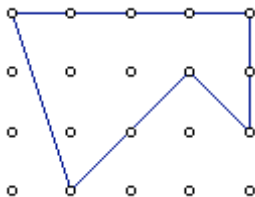


Geometry Test 1 Mr. Holcomb 2008/2009

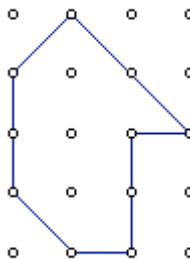
Problem

1. (6 points) Find the area of the shapes below.

a.



b.



2. (10 points) Find the value of x , and the lengths of \overline{AB} and \overline{AC} .



$$\begin{aligned} AB &= 2x + 1 \\ BC &= 3x \\ CS &= 4x - 1 \\ AD &= 36 \end{aligned}$$

3. (3 points) Rewrite $(3x + 5)(-x)$ without parentheses.

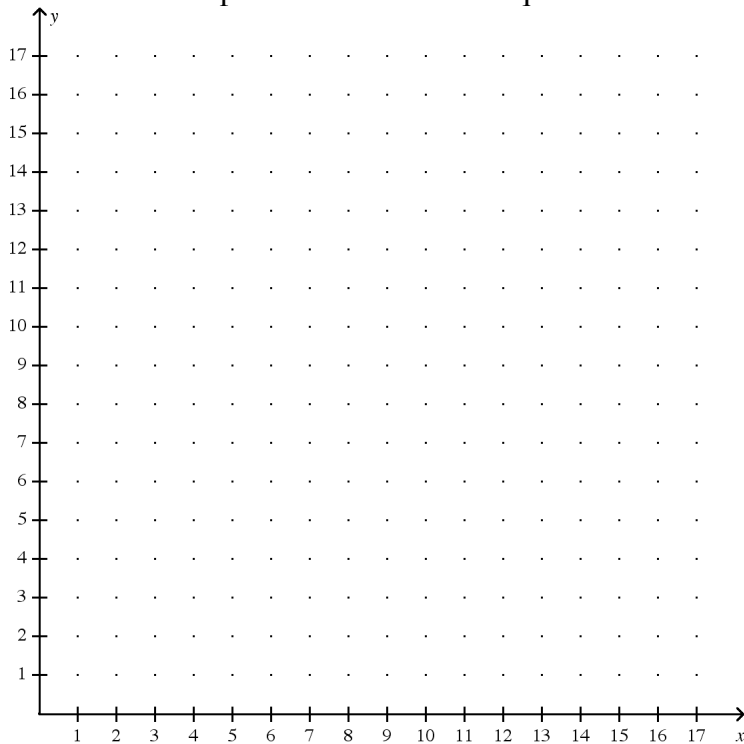
4. (5 points) Solve the equation $38 = 2x - (-4)$

5. (5 points) Solve the equation $7(b-3) = 8b+2$.

6. (5 points) Draw four points, A, B, C, and D so that no three are collinear. Then draw \overrightarrow{BA} , \overleftrightarrow{CA} , \overline{DA} .

7. (8 points) The coordinates of two vertices of a square are $(3,5)$ and $(6,7)$.

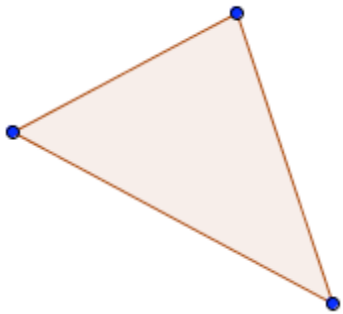
- a. Draw one possible square with the other vertices on “intersctions”.
- b. What are the slopes of the sides of the square?



8. (5 points) Draw a triangle with sides of 8 cm, 6cm, and 7cm. Using a protractor, measure each of the interior angles. Label the angles with their measures.

9. (5 points) Part of the proof we did showing that the sum of the interior angles of a triangle is always 180° is shown below.

- a) Draw in the three exterior angles and label their measures a, b, and c.
b) Fill in the blanks to show that the sum of the interior angles of a triangle is 180° .



$$(180^\circ - a) + (180^\circ - b) + (180^\circ - c) = 540^\circ - (\underline{\quad} + \underline{\quad} + \underline{\quad})$$

$$= 540^\circ - \underline{\hspace{2cm}}^\circ$$

$$= 180^\circ$$