Tajima HS Solis IM1

CH. 6 and 7 – Test Review Practice

Name _____ PER____ DATE_____

ACED2 + AREIC6

1. Hotdogs and corndogs were sold at last night's football game. Use the information below to write equations to help you determine how many corndogs were sold.

a. The number of hotdogs (h) sold was three fewer than twice the number of corndogs (c) sold. Write an equation relating the number of hotdogs and corndogs. Let h represent the number of hotdogs and c represent the number of corndogs.

$h = 2c - 3$ ← three fewer

b. A hotdog costs $3 and a corndog costs $1.50. If $201 was collected (TOTAL), write an equation to represent this information.

$3h + 1.50c = 201$

c. How many corndogs were sold? Show how you calculated your answer.

Substitution

$3(2c-3) + 1.50c = 201$

$6c - 9 + 1.50c = 201$

$+9 \quad +9$

$\frac{7.50c}{7.50} = \frac{210}{7.50}$

$c = 28$

28 corndogs were sold

AREIC6

2. Kevin and his little sister, Katy, are trying to solve the system of equations shown below. Kevin thinks that using the Substitution Method should give a new equation of $3(6x - 1) + 2y = 43$, while Katy thinks it should be $3x + 2(6x - 1) = 43$. Who is correct and why?

$y = 6x - 1$
$3x + 2y = 43$

$3x + 2(6x - 1) = 43$

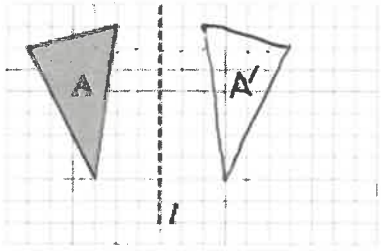
Katy is correct because she substituted y in the second equation with $6x-1$. Kevin replaced 'x' with $6x-1$ by mistake, since x does not equal $6x-1$.

Answers to be posted on the WEEBLY by 1:45pm

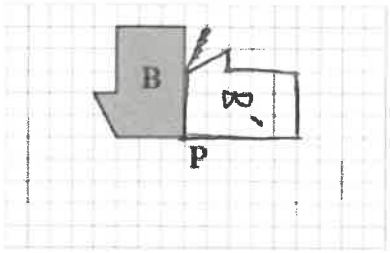
GCO7

Find the result when each indicated transformation is performed below.

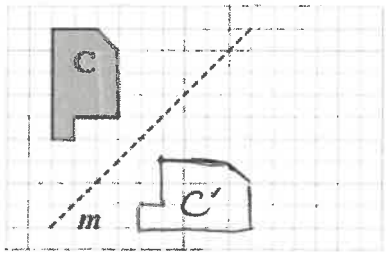
a. **Reflect Figure A across line *l*.**



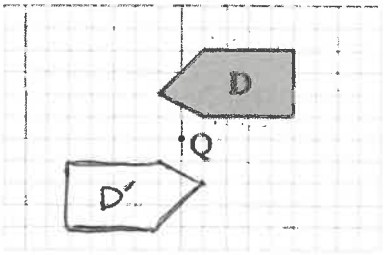
b. **Rotate Figure B 90° clockwise (↻) about point P.**



c. **Reflect Figure C across line *m*.**



d. **Rotate Figure D 180° about point Q.**



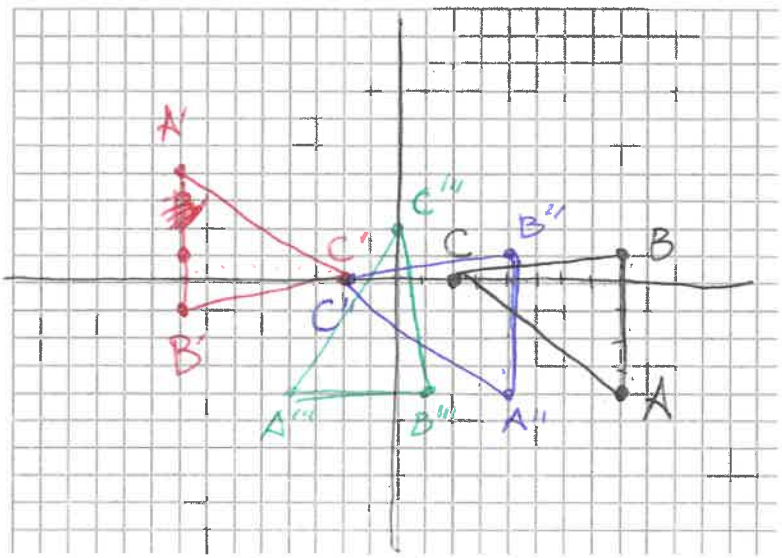
- **3-94.** Plot ΔABC on graph paper with vertices $A(8, -4)$, $B(8, 1)$, and $C(2, 0)$.

  a. What is the area of ΔABC? $\frac{1}{2}bh = \frac{1}{2}(5)(6) = 15$

  b. ΔABC is rotated about the origin 180° to become $\Delta A'B'C'$. Name the coordinates of A', B', and C'. $(-8,4)$ $(-8,-1)$ $(-2,0)$

  c. This time ΔABC is rotated 180° about point C to form $\Delta A''B''C''$. Name the coordinates of B''. $(4,-4)$ $(4,1)$ $(-2,0)$

  d. If ΔABC is rotated 90° clockwise (↻) about the origin to form $\Delta A'''B'''C'''$, what are the coordinates of point A''''? $(-4,-4)$



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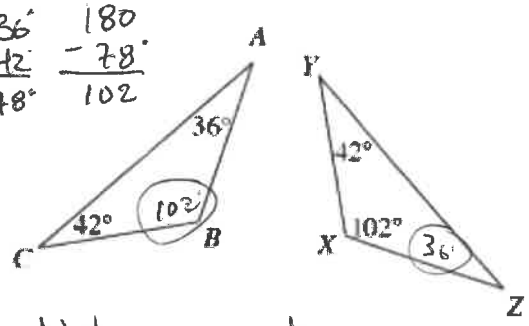
GCO8

For each pair of triangles below, determine whether or not the triangles are congruent.

- If they are congruent, state the correct Triangle Congruency Theorem. If they are not congruent, explain why not.
- If they are congruent, describe a series of transformations that map the left triangle onto the right triangle.

a.

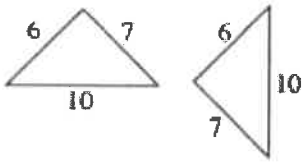
$36 + 42 = 78$ $\quad 180 - 78 = 102$



Not congruent

Since we only have information about sides.

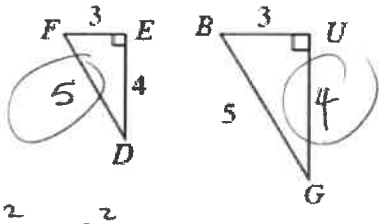
b.



These triangles are congruent because of the Side-Side-Side Theorem.

The left triangle can be rotated 90° counter clockwise and translated to the right, to match the right triangle.

c.



$3^2 + 4^2 = c^2$

$9 + 16 = c^2$

$\sqrt{25} = \sqrt{c^2}$

$5 = c$

These triangles are congruent by the Side-Side-Side Theorem.

The left triangle can be translated to the right to match the right triangle.

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