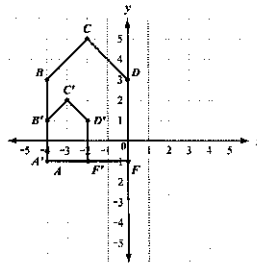


Name: key Date: _____

MULTIPLE CHOICE PRACTICE

1. Figure A'B'C'D'F' is a dilation of figure ABCDF by a scale factor of 1/2. The dilation is centered at (-4, -1).

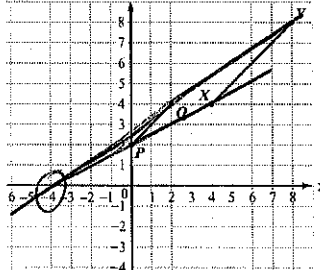


Which statement is true?

- a) $\frac{AB}{A'B'} = \frac{B'C'}{BC}$ **b) $\frac{AB}{A'B'} = \frac{BC}{B'C'}$** c) $\frac{AB}{A'B'} = \frac{BC}{D'F'}$ d) $\frac{AB}{A'B'} = \frac{DF}{B'C'}$

2. Which transformation results in a figure that is similar to the original figure but has a greater area?
 a) a dilation of ΔQRS by a scale factor of 0.25
 b) a dilation of ΔQRS by a scale factor of 0.5
 c) a dilation of ΔQRS by a scale factor of 1
d) a dilation of ΔQRS by a scale factor of 2

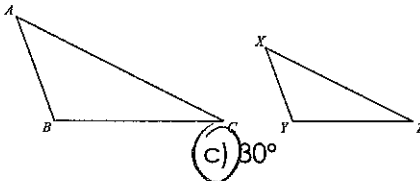
3. In the coordinate plane, segment PQ is the result of a dilation of segment XY by a scale factor of 1/2.



Which point is the center of dilation?

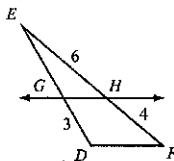
- a) (-4, 0)** b) (0, -4) c) (0, 4) d) (4, 0)

4. In the triangles shown, ΔABC is dilated by a factor of 2/3 to form ΔXYZ . Given that $m\angle A = 50^\circ$ and $m\angle B = 100^\circ$, what is the $m\angle Z$?



- a) 15° b) 25° **c) 30°** d) 50°

5. In the triangle shown, $\overline{GH} \parallel \overline{DF}$.



$$\frac{x}{3} = \frac{6}{4}$$

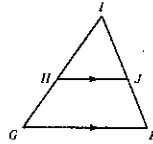
$$4x = 18$$

$$x = 4.5$$

What is the length of \overline{GH} ?

- a) 2.0 **b) 4.5** c) 7.5 d) 8.0

6. Use this triangle to answer the question.

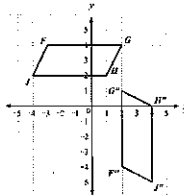


This is a proof of the statement "If a line is parallel to one side of a triangle and intersects the other two sides at distinct points, then it separates these sides into segments of proportional lengths."

Which reason justifies step 2?

- a) Alternate interior angles are congruent.
- b) Alternate exterior angles are congruent.
- c) Corresponding angles are congruent.
- d) Vertical angles are congruent.

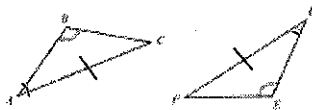
7. Parallelogram FGHI was translated 3 units down to form parallelogram F'G'H'I'. Parallelogram F'G'H'I' was then rotated 90° counterclockwise about point G' to obtain parallelogram F''G''H''I''.



Which statement is true about parallelogram FGHI and parallelogram F''G''H''I''?

- a) The figures are both similar and congruent.
- b) The figures are neither similar nor congruent.
- c) The figures are similar but not congruent.
- d) The figures are congruent but not similar.

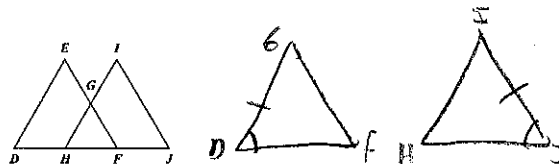
8. Consider the triangles shown.



Which can be used to prove the triangles congruent?

- a) SSS
- b) ASA
- c) SAS
- d) AAS

9. In this diagram, $\overline{DE} \cong \overline{JI}$ and $\angle D \cong \angle J$.



Which additional information is sufficient to prove that $\triangle DEF$ is congruent to $\triangle JIH$?

- a) $\overline{EF} \cong \overline{IH}$
- b) $\overline{DH} \cong \overline{JF}$
- c) $\overline{HG} \cong \overline{GI}$
- d) $\overline{HF} \cong \overline{JF}$

10. In this diagram, STU is an isosceles triangle where \overline{ST} is congruent to \overline{UT} . The paragraph proof shows that $\angle S$ is congruent to $\angle U$.



It is given that \overline{ST} is congruent to \overline{UT} . Draw \overline{TV} that bisects $\angle T$. By the definition of an angle bisector, $\angle STV$ is congruent to $\angle UTV$. By the Reflexive Property, \overline{TV} is congruent to \overline{TV} . $\triangle STV$ is congruent to $\triangle UTV$ by SAS. $\angle S$ is congruent to $\angle U$ by ____? ____.

- a) CPCTC
- b) Reflexive Property of \cong
- c) Def. of Right angles
- d) \angle Congruence Postulate