

1	2	3 (TARGET)	4
Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. G.CO.1			
I can define or draw some of these terms, or recognize only some of them. I can't always label and name them correctly yet.	I can translate most simple geometric figures between words, symbols and drawings including labels, names, and markings most of the time.	I can translate geometric figures between words, symbols and drawings including labels, names, and markings.	I can translate complex figures between words, symbols and drawings.
Use rigid transformations G.CO.3, G.CO.4, G.CO.5			
I can describe rotations and reflections that carry a figure onto itself.	I can transform a figure given a rotation, reflection or translation	I can name a sequence of rigid motions that will transform a figure onto another.	I can describe more than one sequence of transformations between two figures.
Show congruence with rigid transformation G.CO.6, G.CO.7, G.CO.8			
I can explain what it means for figures to be congruent.	I can demonstrate that two figures are congruent or not using rigid motions	I can demonstrate that two triangles are congruent (or not) if and only if corresponding pairs of angles and sides are congruent.	Explain how the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions.
Precision: I can accurately calculate values, label diagrams, tables and graphs, identify units in my work, use appropriate notation			
Rarely	Occasionally	Most of the time	Always

- 1) Identify if the statement is true or false. If it is false, either explain why or sketch a counterexample.
- a) ___ "The ray through point N from point O" is written in symbolic form as \overrightarrow{NO} .
 - b) ___ We can interpret "the length of segment PQ" as the same as the "distance from point P to point Q".
 - c) ___ The vertex of $\angle CVU$ is point V.
 - d) ___ These two statements are the same: $\angle A \cong \angle Z$ and $m\angle A = m\angle Z$.
 - e) ___ If points are coplanar, then they are also collinear.
 - f) ___ Mathematical models are tools for making sense, justifying and generalizing mathematical ideas.
 - g) ___ Secretly, I'm glad my teacher makes me practice pronouncing and saying math terms and phrases.

2) Sketch, label and mark the figure with the info provided.

$\angle D \cong \angle C$; $\angle DEA \cong \angle CEB$; $\angle DAE \cong \angle CBE$;

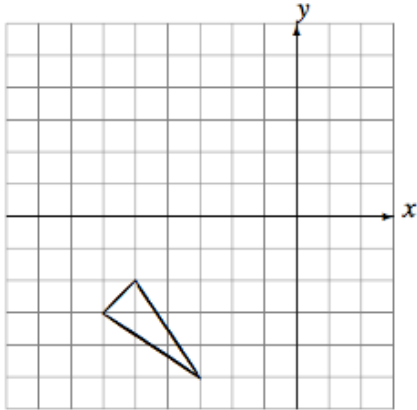
$\overline{DA} \cong \overline{CB}$;
 $\overline{DE} \cong \overline{CE}$;
 $\overline{EA} \cong \overline{EB}$.

3) Write a congruence statement about two triangles in problem 2. _____

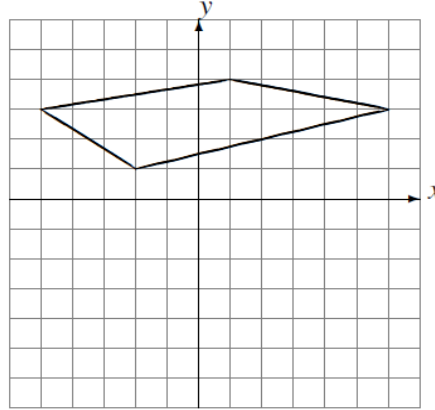
What evidence supports this statement?

Explain how a reflection would also support the statement.

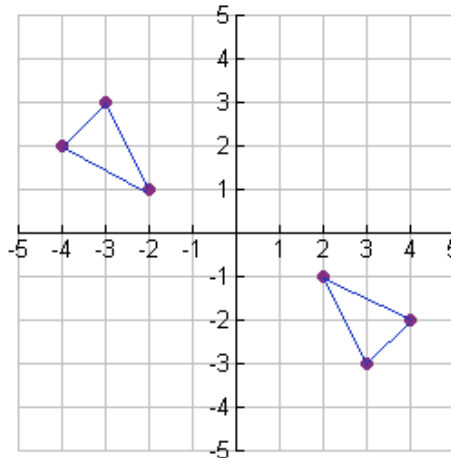
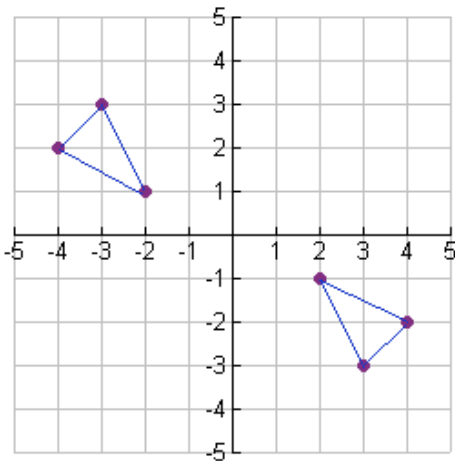
4) Reflect across $y = 0$. Show important properties involving the line of reflection: perpendicular, parallel and congruent.



5) Translate $(x, y) \rightarrow (x + 1, y - 1)$ and rotate 90° clockwise about the origin. Show both images.

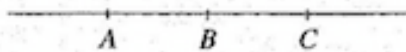


6) Demonstrate your understanding that figures can be transformed in more than one way by describing, in detail, two series of transformations. The original figure is in quadrant II.



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7) SAT Q: Show where D lies in the figure. Then, show your reasoning to support the correct answer.



In the figure above, $AC = 24$ and $AB = BC$. Point D (not shown) is on the line between A and B such that $AD = DB$. What does DC equal?

- (A) 6
- (B) 12
- (C) 16
- (D) 18
- (E) 20

8) Explain how the criteria for triangle congruence (ASA, SAS, and SSS; you may pick any one) follow from the definition of congruence in terms of rigid motions.