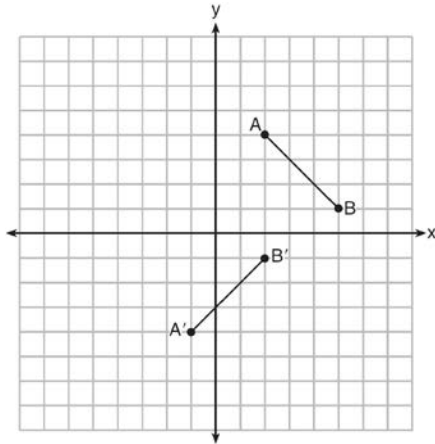


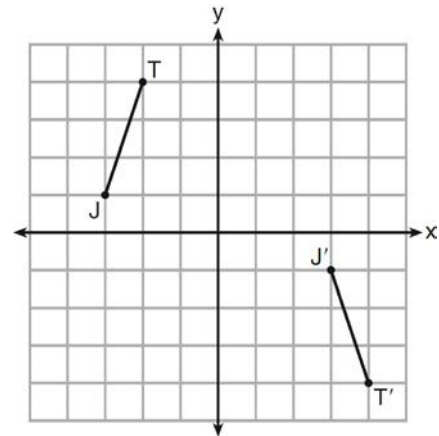
G.G.56: Identifying Transformations 1: Identify specific isometries by observing orientation, numbers of invariant points, and/or parallelism

- 1 In the diagram below, $\overline{A'B'}$ is the image of \overline{AB} under which single transformation?



- 1) dilation
- 2) rotation
- 3) translation
- 4) glide reflection

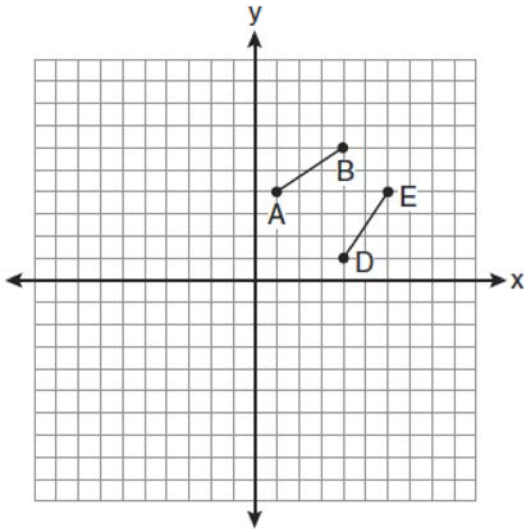
- 2 The graph below shows \overline{JT} and its image, $\overline{J'T'}$, after a transformation.



Which transformation would map \overline{JT} onto $\overline{J'T'}$?

- 1) translation
- 2) glide reflection
- 3) rotation centered at the origin
- 4) reflection through the origin

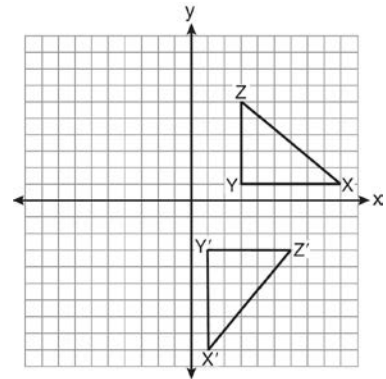
- 3 The diagram below shows \overline{AB} and \overline{DE} .



Which transformation will move \overline{AB} onto \overline{DE} such that point D is the image of point A and point E is the image of point B ?

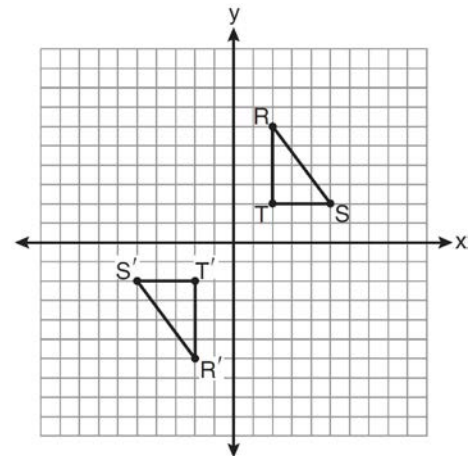
- 1) $T_{3,-3}$
- 2) $D_{\frac{1}{2}}$
- 3) R_{90°
- 4) $r_{y=x}$

- 4 In the diagram below, under which transformation is $\triangle X'Y'Z'$ the image of $\triangle XYZ$?



- 1) dilation
- 2) reflection
- 3) rotation
- 4) translation

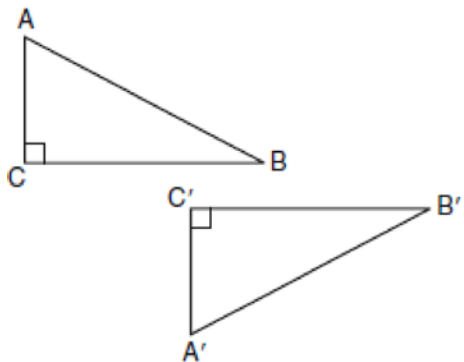
- 5 As shown on the graph below, $\triangle R'S'T'$ is the image of $\triangle RST$ under a single transformation.



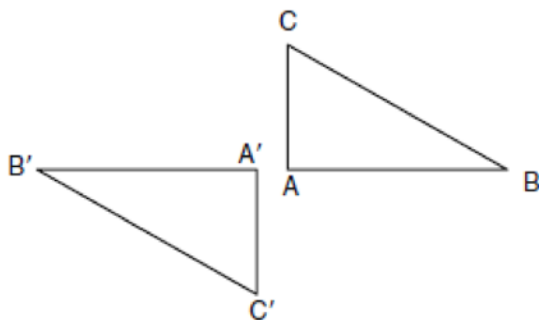
Which transformation does this graph represent?

- 1) glide reflection
- 2) line reflection
- 3) rotation
- 4) translation

- 6 In the diagram below, which transformation was used to map $\triangle ABC$ to $\triangle A'B'C'$?

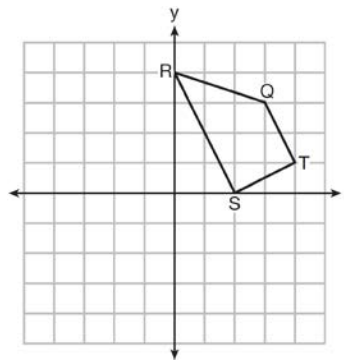


- 1) dilation
 - 2) rotation
 - 3) reflection
 - 4) glide reflection
- 7 In the diagram below, under which transformation will $\triangle A'B'C'$ be the image of $\triangle ABC$?



- 1) rotation
- 2) dilation
- 3) translation
- 4) glide reflection

- 8 Trapezoid $QRST$ is graphed on the set of axes below.



Under which transformation will there be *no* invariant points?

- 1) $r_{y=0}$
 - 2) $r_{x=0}$
 - 3) $r_{(0,0)}$
 - 4) $r_{y=x}$
- 9 A transformation of a polygon that always preserves both length and orientation is
- 1) dilation
 - 2) translation
 - 3) line reflection
 - 4) glide reflection
- 10 Which transformation can map the letter **S** onto itself?
- 1) glide reflection
 - 2) translation
 - 3) line reflection
 - 4) rotation
- 11 Which transformation is *not* always an isometry?
- 1) rotation
 - 2) dilation
 - 3) reflection
 - 4) translation

G.G.56: Identifying Transformations 1: Identify specific isometries by observing orientation, numbers of invariant points, and/or parallelism**Answer Section**

1 ANS: 4

(2) rotation is also a correct response

REF: 011527ge

2 ANS: 2 REF: 061227ge

3 ANS: 4 REF: 061018ge

4 ANS: 3 REF: 081405ge

5 ANS: 3 REF: 061122ge

6 ANS: 4 REF: 080915ge

7 ANS: 1 REF: 060903ge

8 ANS: 3 REF: 011427ge

9 ANS: 2 REF: 081015ge

10 ANS: 4 REF: 061015ge

11 ANS: 2 REF: 011006ge