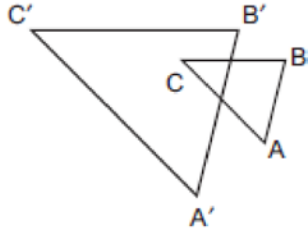


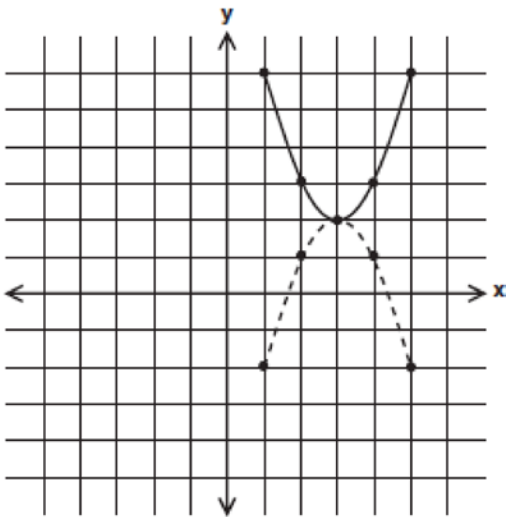
G.CO.A.2: Identifying Transformations 2

- 1 In the accompanying diagram, $\triangle ABC$ is similar to but not congruent to $\triangle A'B'C'$.



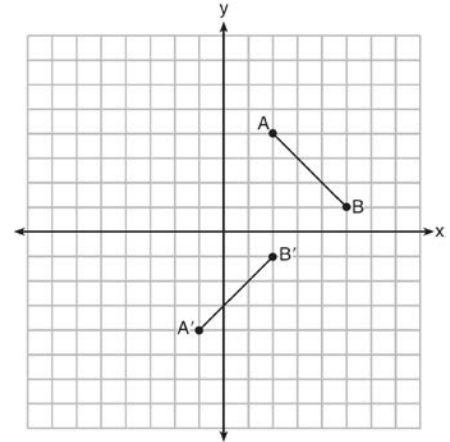
Which transformation is represented by $\triangle A'B'C'$?

- 1) rotation
 - 2) translation
 - 3) reflection
 - 4) dilation
- 2 In the accompanying diagram, which transformation changes the solid-line parabola to the dotted-line parabola?

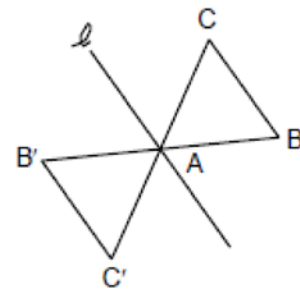


- 1) translation
- 2) line reflection, only
- 3) rotation, only
- 4) line reflection or rotation

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

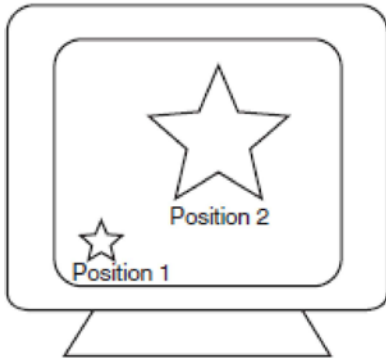


- 1) dilation
 - 2) rotation
 - 3) translation
 - 4) glide reflection
- 4 The transformation of $\angle ABC$ to $\angle A'B'C'$ is shown in the accompanying diagram.



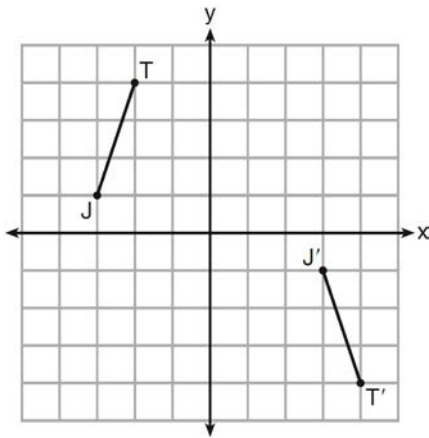
- This transformation is an example of a
- 1) line reflection in line ℓ
 - 2) rotation about point A
 - 3) dilation
 - 4) translation

- 5 As shown in the accompanying diagram, the star in position 1 on a computer screen transforms to the star in position 2.



This transformation is best described as a

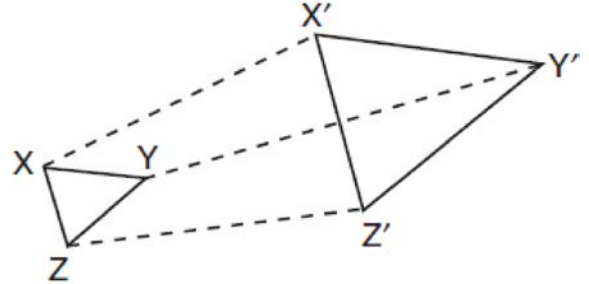
- 1) line reflection
 - 2) translation
 - 3) rotation
 - 4) dilation
- 6 The graph below shows \overline{JT} and its image, $\overline{J'T'}$, after a transformation.



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

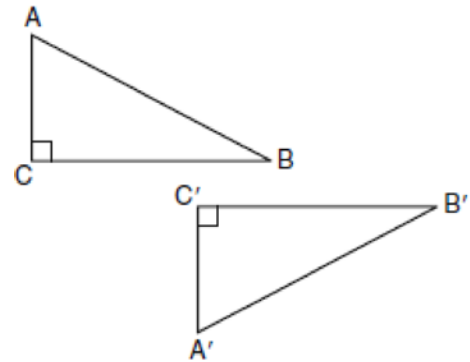
- 1) translation
- 2) glide reflection
- 3) rotation centered at the origin
- 4) reflection through the origin

- 7 The accompanying diagram shows the transformation of $\triangle XYZ$ to $\triangle X'Y'Z'$.



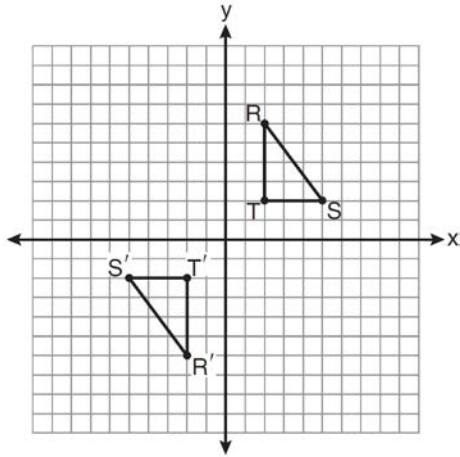
This transformation is an example of a

- 1) line reflection
 - 2) rotation
 - 3) translation
 - 4) dilation
- 8 In the diagram below, which transformation was used to map $\triangle ABC$ to $\triangle A'B'C'$?



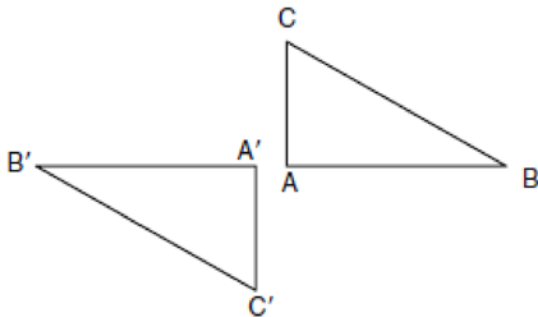
- 1) dilation
- 2) rotation
- 3) reflection
- 4) glide reflection

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



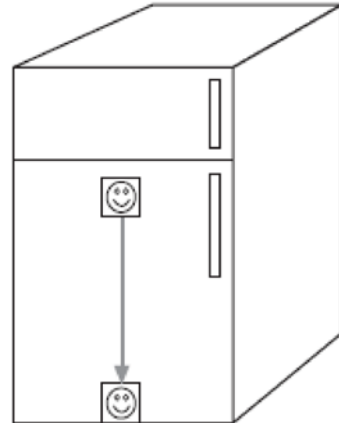
Which transformation does this graph represent?

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



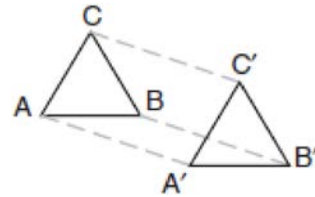
- 1) rotation
- 2) dilation
- 3) translation
- 4) glide reflection

- 11 A picture held by a magnet to a refrigerator slides to the bottom of the refrigerator, as shown in the accompanying diagram.



This change of position is an example of a

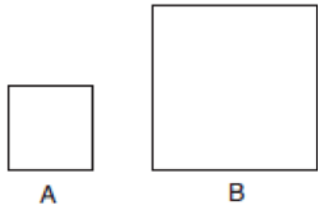
- 1) translation
 - 2) dilation
 - 3) rotation
 - 4) reflection
- 12 In the accompanying diagram, $\triangle A'B'C'$ is the image of $\triangle ABC$ and $\triangle A'B'C' \cong \triangle ABC$.



Which type of transformation is shown in the diagram?

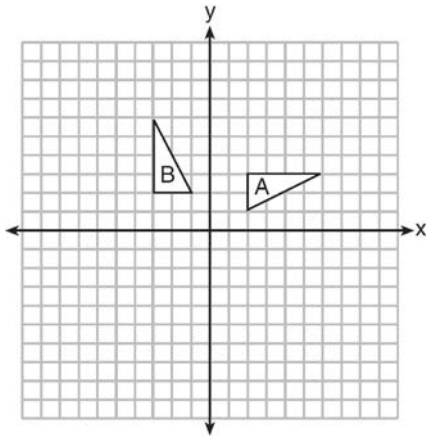
- 1) line reflection
- 2) rotation
- 3) translation
- 4) dilation

- 13 In the accompanying diagram, figure B is the image of figure A .

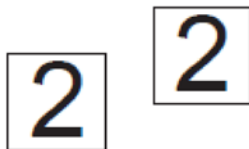


Which type of transformation was performed?

- 1) dilation
 - 2) translation
 - 3) rotation
 - 4) reflection
- 14 In the diagram below, which single transformation was used to map triangle A onto triangle B ?

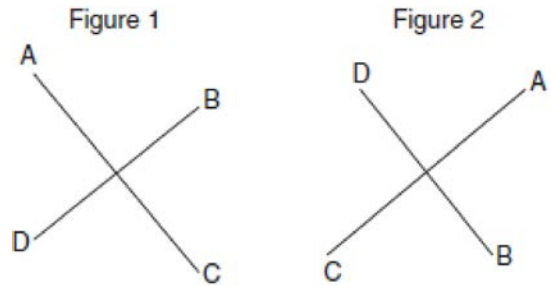


- 1) line reflection
 - 2) rotation
 - 3) dilation
 - 4) translation
- 15 Which transformation is illustrated by the accompanying diagram?



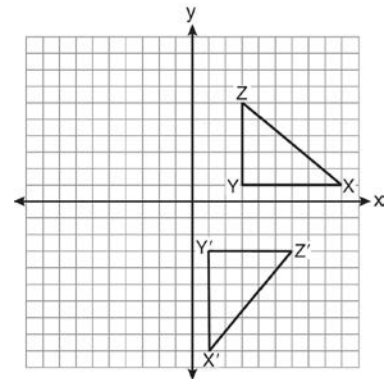
- 1) translation
- 2) reflection
- 3) rotation
- 4) dilation

- 16 The accompanying diagram shows a transformation.



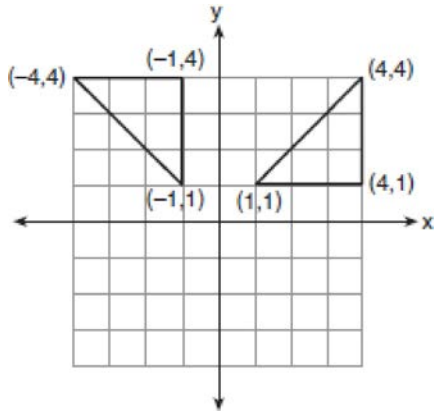
Which transformation performed on figure 1 resulted in figure 2?

- 1) rotation
 - 2) reflection
 - 3) dilation
 - 4) translation
- 17 In the diagram below, under which transformation is $\triangle X'Y'Z'$ the image of $\triangle XYZ$?



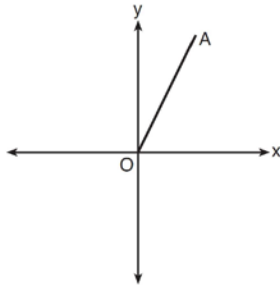
- 1) dilation
- 2) reflection
- 3) rotation
- 4) translation

18 Which type of transformation is illustrated in the accompanying diagram?



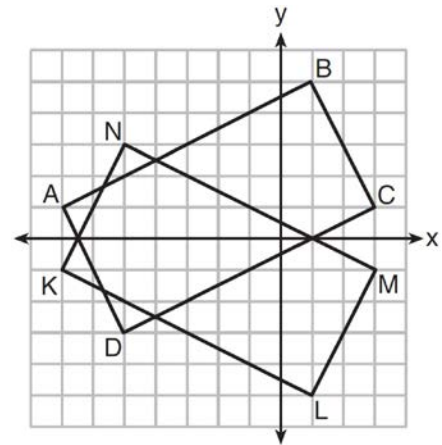
- 1) dilation
- 2) reflection
- 3) translation
- 4) rotation

19 Which transformation of \overline{OA} would result in an image parallel to \overline{OA} ?



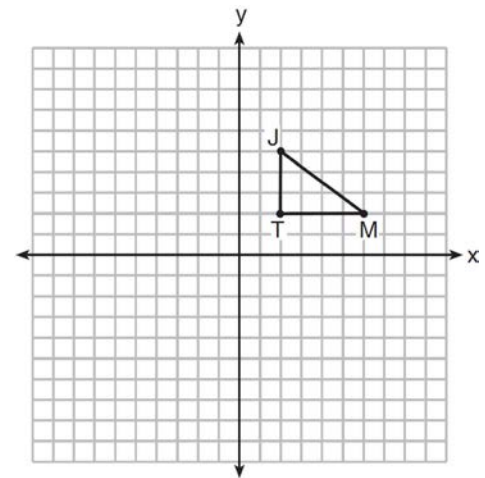
- 1) a translation of two units down
- 2) a reflection over the x -axis
- 3) a reflection over the y -axis
- 4) a clockwise rotation of 90° about the origin

20 On the set of axes below, rectangle $ABCD$ can be proven congruent to rectangle $KLMN$ using which transformation?



- 1) rotation
- 2) translation
- 3) reflection over the x -axis
- 4) reflection over the y -axis

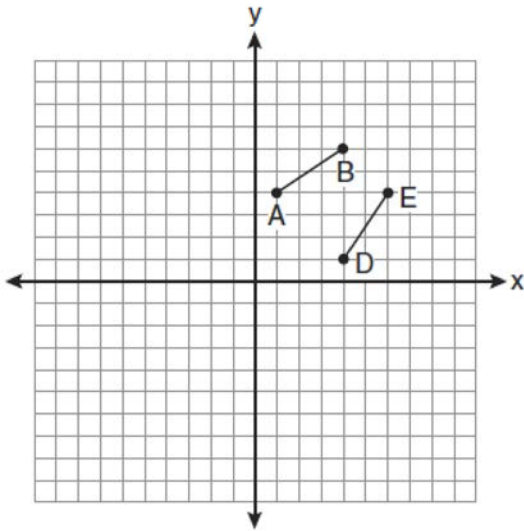
21 Triangle JTM is shown on the graph below.



Which transformation would result in an image that is *not* congruent to $\triangle JTM$?

- 1) $r_{y=x}$
- 2) R_{90°
- 3) $T_{0,-3}$
- 4) D_2

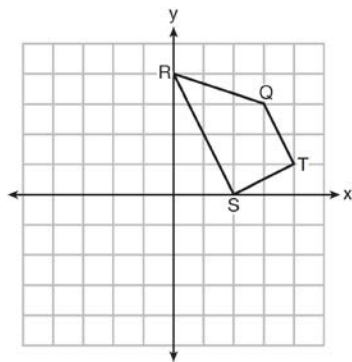
22 The diagram below shows \overline{AB} and \overline{DE} .



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) $r_{y=x}$

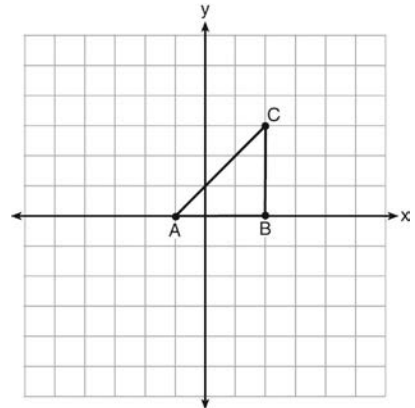
23 Trapezoid $QRST$ is graphed on the set of axes below.



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

- 1) $r_{y=0}$
- 2) $r_{x=0}$
- 3) $r_{(0,0)}$
- 4) $r_{y=x}$





24 Triangle ABC is graphed on the set of axes below.



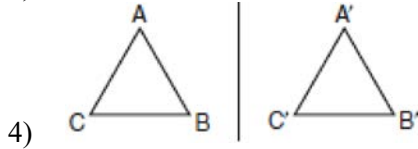
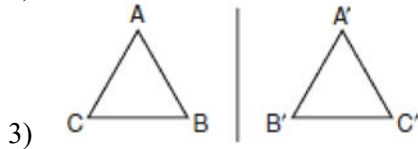
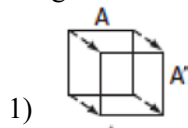
Which transformation produces an image that is similar to, but *not* congruent to, $\triangle ABC$?

- 1) $T_{2,3}$
- 2) D_2
- 3) $r_{y=x}$
- 4) R_{90}

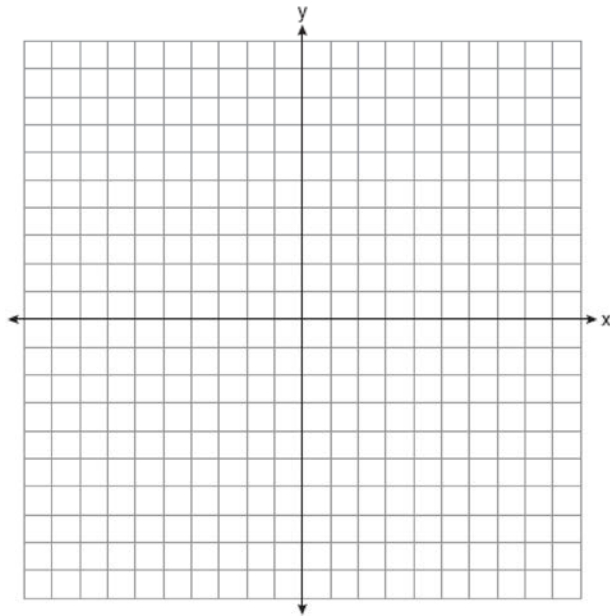
25 Which image represents a line reflection?

- 1) 
- 2) 
- 3) 
- 4) 

- 26 Ms. Brewer’s art class is drawing reflected images. She wants her students to draw images reflected in a line. Which diagram represents a correctly drawn image?



- 27 Triangle ABC has vertices at $A(-5,2)$, $B(-4,7)$, and $C(-2,7)$, and triangle DEF has vertices at $D(3,2)$, $E(2,7)$, and $F(0,7)$. Graph and label $\triangle ABC$ and $\triangle DEF$ on the set of axes below. Determine and state the single transformation where $\triangle DEF$ is the image of $\triangle ABC$. Use your transformation to explain why $\triangle ABC \cong \triangle DEF$.



G.CO.A.2: Identifying Transformations 2

Answer Section

1 ANS: 4 REF: 060216a

2 ANS: 4 REF: 080212a

3 ANS: 4

(2) rotation is also a correct response

REF: 011527ge

4 ANS: 2 REF: 089903a

5 ANS: 4 REF: 080506a

6 ANS: 2 REF: 061227ge

7 ANS: 4 REF: 060711a

8 ANS: 4 REF: 080915ge

9 ANS: 3 REF: 061122ge

10 ANS: 1 REF: 060903ge

11 ANS: 1 REF: 060508a

12 ANS: 3 REF: 080719a

13 ANS: 1 REF: 010804a

14 ANS: 2 REF: 081513geo

15 ANS: 1 REF: 060812a

16 ANS: 1 REF: 010305a

17 ANS: 3 REF: 081405ge

18 ANS: 4 REF: 060410a

19 ANS: 1 REF: 061604geo

20 ANS: 3 REF: 061616geo

21 ANS: 4 REF: 081506ge

22 ANS: 4 REF: 061018ge

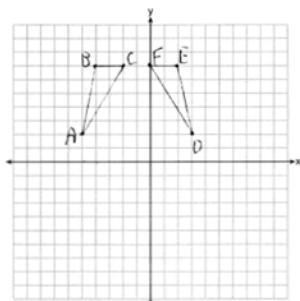
23 ANS: 3 REF: 011427ge

24 ANS: 2 REF: 061201ge

25 ANS: 1 REF: 010701a

26 ANS: 3 REF: 010602a

27 ANS:



$r_{x=-1}$ Reflections are rigid motions that preserve distance, so $\triangle ABC \cong \triangle DEF$.

REF: 061732geo