

G.CO.A.5: Reflections 1

- 1 Point A is located at $(4, -7)$. The point is reflected in the x -axis. Its image is located at
 - 1) $(-4, 7)$
 - 2) $(-4, -7)$
 - 3) $(4, 7)$
 - 4) $(7, -4)$

- 2 When the point $(2, -5)$ is reflected in the x -axis, what are the coordinates of its image?
 - 1) $(-5, 2)$
 - 2) $(-2, 5)$
 - 3) $(2, 5)$
 - 4) $(5, 2)$

- 3 What is the image of point $(-3, 7)$ after a reflection in the x -axis?
 - 1) $(3, 7)$
 - 2) $(-3, -7)$
 - 3) $(3, -7)$
 - 4) $(7, -3)$

- 4 What are the coordinates of point $(2, -3)$ after it is reflected over the x -axis?
 - 1) $(2, 3)$
 - 2) $(-2, 3)$
 - 3) $(-2, -3)$
 - 4) $(-3, 2)$

- 5 Point $(-2, 3)$ is reflected in the x -axis. In which quadrant does its image lie?
 - 1) I
 - 2) II
 - 3) III
 - 4) IV

- 6 Reflecting $(5, 1)$ in the y -axis yields an image of
 - 1) $(5, -1)$
 - 2) $(-5, -1)$
 - 3) $(5, 1)$
 - 4) $(-5, 1)$

- 7 The image of point $(3, 4)$ when reflected in the y -axis is
 - 1) $(-3, -4)$
 - 2) $(-3, 4)$
 - 3) $(3, -4)$
 - 4) $(4, 3)$

- 8 What is the image of the point $(2, -3)$ after the transformation $r_{y\text{-axis}}$?
 - 1) $(2, 3)$
 - 2) $(-2, -3)$
 - 3) $(-2, 3)$
 - 4) $(-3, 2)$

- 9 What are the coordinates of point P , the image of point $(3, -4)$ after a reflection in the line $y = x$?
 - 1) $(3, 4)$
 - 2) $(-3, 4)$
 - 3) $(4, -3)$
 - 4) $(-4, 3)$

- 10 What is the image of $(5, -2)$ under the transformation $r_{y=x}$?
 - 1) $(-5, 2)$
 - 2) $(5, 2)$
 - 3) $(2, 5)$
 - 4) $(-2, 5)$

- 11 If the point $(2, -5)$ is reflected in the line $y = x$, then the image is
- 1) $(5, -2)$
 - 2) $(-2, 5)$
 - 3) $(-5, 2)$
 - 4) $(-5, -2)$
- 12 The coordinates of point A are $(-3a, 4b)$. If point A' is the image of point A reflected over the line $y = x$, the coordinates of A' are
- 1) $(4b, -3a)$
 - 2) $(3a, 4b)$
 - 3) $(-3a, -4b)$
 - 4) $(-4b, -3a)$
- 13 What is the image of point $(-3, -1)$ under a reflection in the origin?
- 1) $(3, 1)$
 - 2) $(-3, 1)$
 - 3) $(1, 3)$
 - 4) $(-1, -3)$
- 14 The point $(-3, -2)$ is reflected in the origin. The coordinates of its image are
- 1) $(-2, -3)$
 - 2) $(3, 2)$
 - 3) $(2, 3)$
 - 4) $(-3, 2)$
- 15 A function, f , is defined by the set $\{(2, 3), (4, 7), (-1, 5)\}$. If f is reflected in the line $y = x$, which point will be in the reflection?
- 1) $(5, -1)$
 - 2) $(-5, 1)$
 - 3) $(1, -5)$
 - 4) $(-1, 5)$
- 16 What is the image of $(4, 3)$ after a reflection over the line $y = 1$?
- 1) $(-2, 3)$
 - 2) $(-4, 3)$
 - 3) $(4, -1)$
 - 4) $(4, -3)$
- 17 Which transformation of the line $x = 3$ results in an image that is perpendicular to the given line?
- 1) $r_{x\text{-axis}}$
 - 2) $r_{y\text{-axis}}$
 - 3) $r_{y=x}$
 - 4) $r_{x=1}$
- 18 If $M(-2, 8)$ is reflected in the y -axis, what are the coordinates of M' , the image of M ?
- 19 Find the image of $(1, 5)$ when it is reflected over the line $y = x$.
- 20 Find the image of $P(2, -5)$ under the transformation $r_{y=x}$.
- 21 Find the image of $P(4, -2)$ under the transformation $r_{y=x}$.
- 22 Find the coordinates of the image of point $(5, 2)$ after a reflection in the line $y = x$.
- 23 If point P with coordinates (a, b) is reflected in the line $y = x$, what are the coordinates of the image of P ?

G.CO.A.5: Reflections 1**Answer Section**

- 1 ANS: 3 REF: 060905ge
2 ANS: 3 REF: 010007a
3 ANS: 2 REF: 010918a
4 ANS: 1 REF: 080713a
5 ANS: 3 REF: 060825a
6 ANS: 4 REF: 019017siii
7 ANS: 2 REF: spring9803a
8 ANS: 2 REF: 081108ge
9 ANS: 4 REF: 060306b
10 ANS: 4 REF: 069628siii
11 ANS: 3 REF: 069735siii
12 ANS: 1 REF: 081113ge
13 ANS: 1 REF: 080418a
14 ANS: 2 REF: 068824siii
15 ANS: 1 REF: 060710b

- 16 ANS: 3
 $3 - 1 = 2$
 $1 - 2 = -1$

REF: 082317geo

- 17 ANS: 3 REF: 081021ge
18 ANS:
(2,8)

REF: 089003siii

- 19 ANS:
(5,1)

REF: 068005siii

- 20 ANS:
(-5,2)

REF: 010405siii

- 21 ANS:
(-2,4)

REF: 019809siii

- 22 ANS:
(2,5)

REF: 010306siii

23 ANS:
 (b, a)

REF: 068605siii