

**G.CO.A.5: Reflections 1a**

- 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 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)  $r_{x=1}$
- 17 If  $M(-2, 8)$  is reflected in the  $y$ -axis, what are the coordinates of  $M'$ , the image of  $M$ ?
- 18 Find the image of  $(1, 5)$  when it is reflected over the line  $y = x$ .
- 19 Find the image of  $P(2, -5)$  under the transformation  $r_{y=x}$ .
- 20 Find the image of  $P(4, -2)$  under the transformation  $r_{y=x}$ .
- 21 Find the coordinates of the image of point  $(5, 2)$  after a reflection in the line  $y = x$ .
- 22 If point  $P$  with coordinates  $(a, b)$  is reflected in the line  $y = x$ , what are the coordinates of the image of  $P$ ?

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**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 REF: 081021ge

17 ANS:  
(2,8)

REF: 089003siii

18 ANS:  
(5,1)

REF: 068005siii

19 ANS:  
(-5,2)

REF: 010405siii

20 ANS:  
(-2,4)

REF: 019809siii

21 ANS:  
(2,5)

REF: 010306siii

22 ANS:  
(*b*,*a*)

REF: 068605siii