Chapter 10 Geometric Figures

10.8 Transformations in the Coordinate Plane

Pages 556-

NOTES (10.8) Transformations in the Coordinate Plane

Note all examples on pp 556-558

When an apostrophe appears after a letter representing points on a coordinate grid, it is called a "prime." K' is read "K prime"

Guided Practice pp 556-558

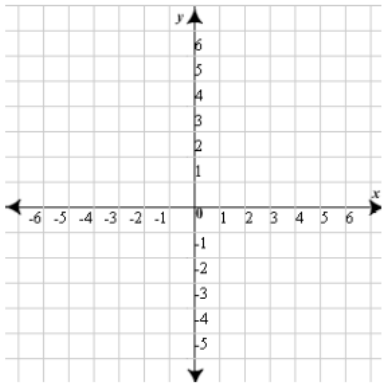
1) left 7 units, up 2 units

2) $(x, y) \longrightarrow (x + 5, y + 4)$

3)

original	→	image
A (-4,0)	→	A' (0,6)
B (0,-4)	→	B' (4,2)
C (0,0)	→	C' (4,6)

4)



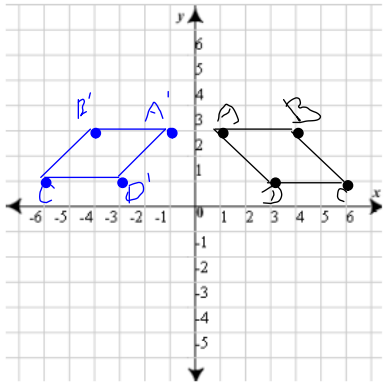
5) original → image

A (1,3) → A' (-1,3)

B (4,3) → B' (-4,3)

C (6,1) → C' (-6,1)

D (3,1) → D' (-3,1)



Homework Guided Practice

1) image

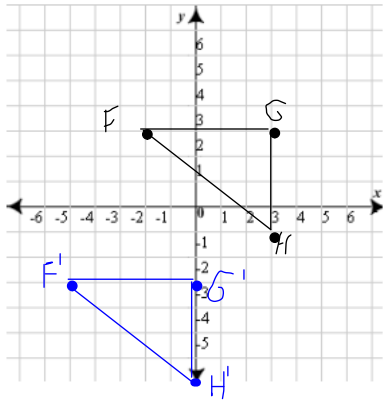
Do # 4 like this

3) (x,y) (-x,y)

Do # 6 & 8 like this (5 pts each)

7) (x,y) → (x-3,y-6)

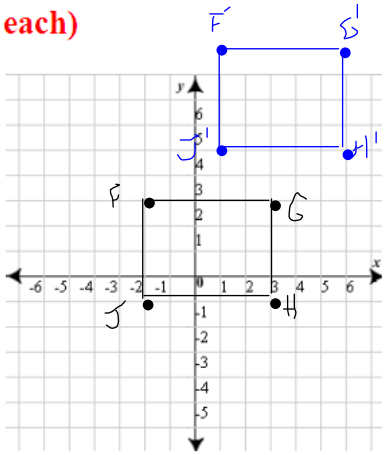
original	image
F (-2,3)	→ F' (-5,-3)
G (3,3)	→ G' (0,-3)
H (3,-1)	→ H' (0,-7)



Do # 10 & 12 like this (6 pts each)

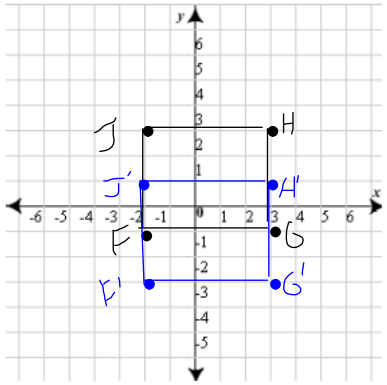
9) $(x,y) \rightarrow (x+3, y+6)$

original	image
F (-2,3)	F' (1,9)
G (3,3)	G' (6,9)
H (3,-1)	H' (6,5)
J (-2,-1)	J' (1,5)



11)

original	image
F (-2,3)	F' (-2,-3)
G (3,3)	G' (3,-3)
H (3,-1)	H' (3,1)
J (-2,-1)	J' (-2,1)



Do # 14 & 16 like this (3 pts each)

9) $(x,y) \rightarrow (y,-x)$

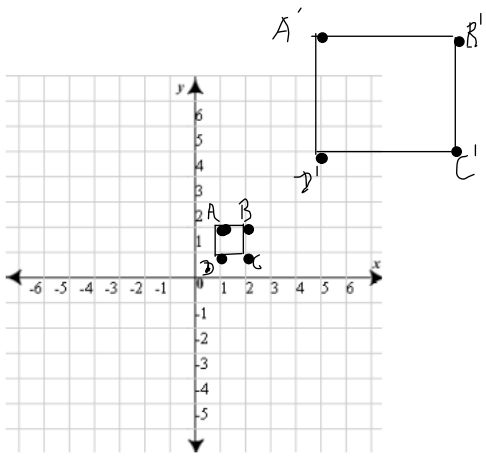
original	image
R (-3,3)	→ R' (3,3)
S (-3,0)	→ S' (0,3)
T (-1,0)	→ T' (0,1)

***Enlarging or reducing a figure by a scale factor to create a similar figure is called a dilation.**

Do # 18 like this (4 pts)

17) scale factor of 5

original	image
A (1,2)	→ A' (5,10)
B (2,2)	→ B' (10,10)
C (2, 1)	→ C' (10,5)
D (1, 1)	→ D' (5,5)



#22 = 3 pts
#24 = 1 pt
#36 = 1 pt