

Translation Treasure Hunt!

Captain Jack Sparrow is looking for his buried treasure. He can no longer sail right to the beach it is on because there is a bounty on his head and he does not want to get too close to the gallows! Perform each multiple translations and follow the directions to the next graph. If you accurately make all of your transformations you will help Captain Jack find his buried treasure without being caught and placed in the gallows.

1. Pre-Image

Reflect over y-axis

Translate $(x,y) \rightarrow (x, y+3)$

Rotate 90° clockwise

A _____

A' _____

A'' _____

A''' _____

B _____

B' _____

B'' _____

B''' _____

C _____

C' _____

C'' _____

C''' _____

D _____

D' _____

D'' _____

D''' _____

****From B''' move up 8 and right 3.****

2. Pre-Image

Reflect over $y = -x$

Translate $(x,y) \rightarrow (x - 5, y + 2)$

E _____

E' _____

E'' _____

F _____

F' _____

F'' _____

G _____

G' _____

G'' _____

****From E'' move up 4, left 11, up 2.****

3. Pre-Image

Reflect over $x = -1$

Rotate 180° Clockwise

Translate $(x,y) \rightarrow (x + 6, y - 1)$

Q _____

Q' _____

Q'' _____

Q''' _____

R _____

R' _____

R'' _____

R''' _____

S _____

S' _____

S'' _____

S''' _____

T _____

T' _____

T'' _____

T''' _____

****From R''' move right 7, down 7, right 3.****

4. Pre-Image

Rotate 270° Counterclockwise

Rotate 90° Clockwise

O _____

O' _____

O'' _____

P _____

P' _____

P'' _____

****From O'' move right 7, up 10, right 2.****

5. Pre-Image	Reflect over $y = -x$	Translate $(x,y) \rightarrow (x - 6, y + 2)$	Rotate 180° Clockwise
X _____	X' _____	X'' _____	X''' _____
Y _____	Y' _____	Y'' _____	Y''' _____
Z _____	Z' _____	Z'' _____	Z''' _____

****From Y''' move up 2, right 7.****

6. Pre-Image	Reflect of y-axis	Rotate 90° Clockwise	Translate $(x, y) \rightarrow (x - 8, y - 2)$
A _____	A' _____	A'' _____	A''' _____
B _____	B' _____	B'' _____	B''' _____
C _____	C' _____	C'' _____	C''' _____
D _____	D' _____	D'' _____	D''' _____
E _____	E' _____	E'' _____	E''' _____

****From E''' move down 4, right 10, down 2, left 4.****

7. Pre-Image	Translate $(x, y) \rightarrow (x - 8, y + 1)$	Rotate 270° Clockwise
E _____	E' _____	E'' _____
F _____	F' _____	F'' _____
G _____	G' _____	G'' _____
H _____	H' _____	H'' _____

****From f'' move left 3, down 3, left 5, down 2.****

8. Pre-Image	Reflect over $y = -1$	Reflect over $y = -x$	Rotate 90° Clockwise
X _____	X' _____	X'' _____	X''' _____
Y _____	Y' _____	Y'' _____	Y''' _____
Z _____	Z' _____	Z'' _____	Z''' _____

****From Z''' move right 3, up 5, right 5, and down 4.****

Congratulations! You have reached the buried treasure!

