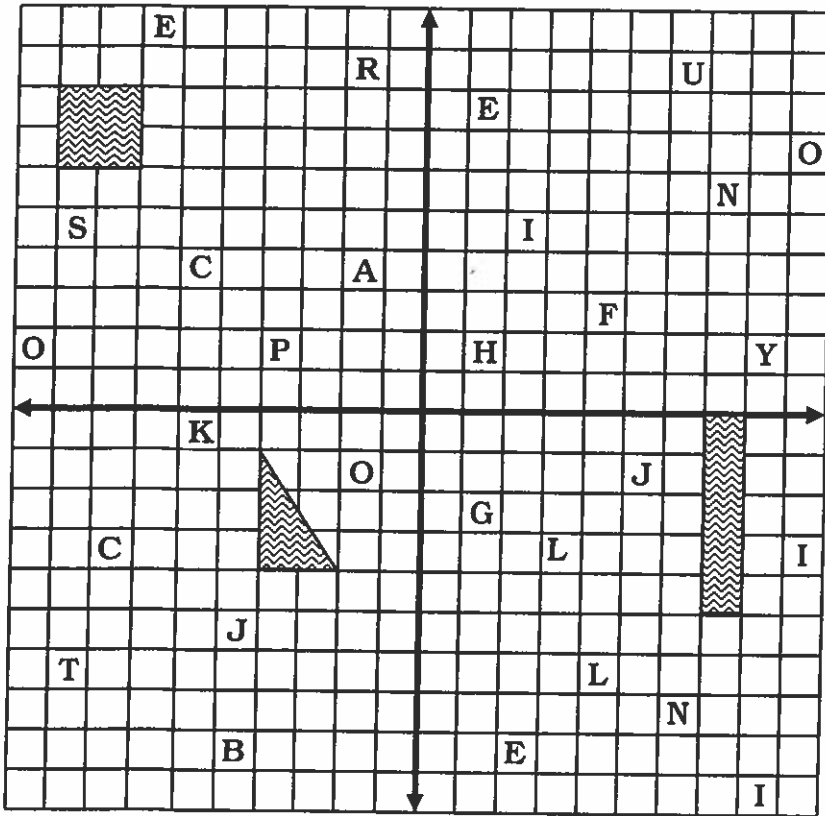


What Kind of Shot Do You Give a Sick Car?

Use rotations, reflections, and translations to draw a new shape that is congruent to the original. The new shape will surround a letter to use at the bottom.



- ① Reflect the square over the x -axis.
- ② Reflect the triangle over the y -axis.
- ③ Translate the rectangle 1 left, and 4 down.
- ④ Translate the triangle 6 right, and 8 up.
- ⑤ Rotate the square 90° clockwise.
- ⑥ Rotate the rectangle 90° counter-clockwise.
- ⑦ Reflect the triangle over the x -axis, and then translate it 2 right.

- ⑧ Reflect the rectangle over the y -axis, and then translate it 2 left, and 3 up.
- ⑨ Rotate the square 180° , and then translate it 1 right, and 2 down.
- ⑩ Reflect the triangle over both axes, and then translate it 4 right, and 2 up.
- ⑪ Rotate the triangle 90° counter-clockwise, and then translate it 1 left, and 5 down.
- ⑫ Translate the rectangle 13 left, and 7 up.
- ⑬ Reflect the square over the y -axis, and then translate it 3 left, and 5 down.
- ⑭ Rotate the rectangle 90° clockwise, and then translate it 1 left, and 2 up.

7	13	5	11	2	4	10	14	6	12	1	9	8	3



Why Shouldn't You Trust an Atom?



Name _____

Use the given rotations, reflections, and translations to find the new ordered pairs for each shape.

Below are the coordinates of triangle ABC.

A:(1,3,2) B:(14,4) C:(15,5)

Apply this transformation:

- 1) Reflect over the x-axis.
- E** What are the coordinates for A'?
- N** What are the coordinates for B'?
- Y** What are the coordinates for C'?

Below are the coordinates of square FGHI.

F:(-2,2) G:(-2,5) H:(1,5) I:(1,2)

Apply these transformations:

- 1) Reflect over the y-axis.
- 2) Translate 2 right, 3 down.
- H** What are the coordinates for F'?
- V** What are the coordinates for G'?
- T** What are the coordinates for H'?
- I** What are the coordinates for I'?

Below are the coordinates of triangle XYZ.

X:(-4,-6) Y:(7,2) Z:(-3,8)

Apply this transformation:

- 1) Translate 3 left and 5 down.
- R** What are the coordinates for X'?
- A** What are the coordinates for Y'?
- U** What are the coordinates for Z'?

Below are the coordinates of square JKLM.

J:(2,2) K:(-2,5) L:(1,5) M:(1,2)

Apply these transformations:

- 1) Reflect over both axes.
- 2) Translate 4 left, 2 up.
- P** What are the coordinates for J'?
- G** What are the coordinates for K'?
- T** What are the coordinates for L'?
- E** What are the coordinates for M'?

Below are the coordinates of triangle DEF.

D:(-2,4) E:(-5,2) F:(-4,7)

Apply these transformations:

- 1) Reflect over the y-axis.
- 2) Rotate 180°.
- H** What are the coordinates for D'?
- K** What are the coordinates for E'?
- E** What are the coordinates for F'?

Below are the coordinates of triangle RST.

R:(3,2) S:(4,4) T:(7,2)

Apply this transformation:

- 1) Rotate 90° clockwise.
- M** What are the coordinates for R'?
- Y** What are the coordinates for S'?
- E** What are the coordinates for T'?

(-5,-3)	(4,-1)	(2,-7)	(15,-5)	(-13,2)	(2,-3)	(4,-3)	(-5,-2)	(-5,0)	(7,11)	(-6,3)	(-6,0)	(-4,4)	(13,-2)	(4,2)	(-4,-7)	(-7,-11)	(4,-4)	(1,2)	(-2,-4)	(1,-1)	(14,-4)	(-2,-3)
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