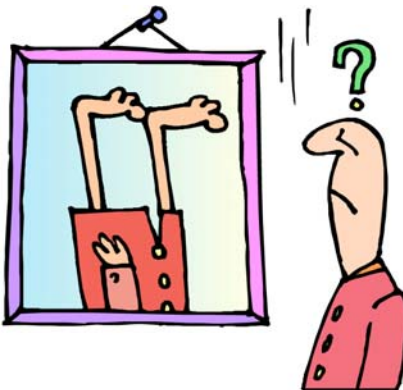




Ah-Bach Transformations

Name _____

Directions: Solve each problem and find its corresponding answer letter in the table at the end. Use the letters to determine how to best describe this situation.



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

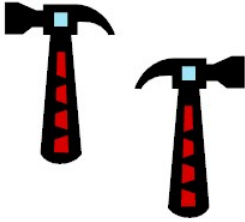
- ___1. The image of $(-2,1)$ under a translation is $(1,0)$. What are the coordinates of the image of $(2,3)$ under the same translation?

- ___2. A transformation that is not an isometry.

- ___3. What are the coordinates of the image of $A(4,2)$ under the following composition:
 $r_{x\text{-axis}} \circ R_{180^\circ} \circ R_{90^\circ}$?

- ___4. What are the coordinates of the image of $A(3,5)$ after R_{270° ?

- ___5. Using your graphing calculator, graph $y = -2x^2 + 4$ and $y = 2x^2 - 4$. What transformation occurred when mapping the first graph onto the second graph?

- ___6. Under a dilation of $D_{0.5}$, will the image get larger or smaller?
- ___7. In which quadrant does the image of $A(-1,-3)$ lie under a translation of $T_{3,4}$?
- ___8. Given the point $B(4,6)$ is reflected in the line $y = x$. What are the coordinates of the image B' ?
- ___9. After a dilation, $(4,-2)$ is the image of $(2,-1)$. What are the coordinates of the image of $(-4,6)$ after the same dilation?
- ___10. The diagram of the hammers at the right illustrates what type of transformation?
- 
- ___11. The vertices of a $\triangle ABC$ are $A(2,8)$, $B(2,-6)$, and $C(-3,5)$. If a translation moves $\triangle ABC$ to $\triangle A'B'C'$ and A to $A'(0,4)$. What are the coordinates of C' ?
- ___12. If a dilation maps $(-2,9)$ onto $(x,27)$, what is the value of x ?

Answer Table:

A (2,4)	B (-2,3)	C (-8,12)	E glide reflection
F (-5,1)	I smaller	K 2	L 3
M I	N (5,-3)	O reflection	P 1/3
Q II	R (5,2)	S translation	T dilation
U (4,6)	V larger	W (2,-4)	X (-5,3)
Y (4,7)	Z (-2,4)	? (-6,-4)	! (6,4)