Name _____ Class _____ Date _____

Practice 3-7

Reflections and Symmetry

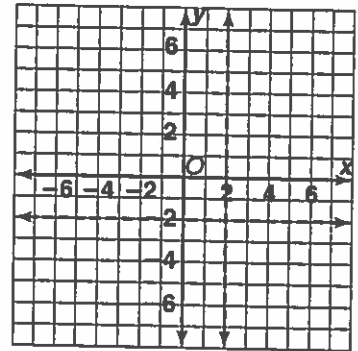How many lines of symmetry can you find for each letter?

1. W _____   2. X _____   3. H _____   4. T _____

Graph the given point and its image after each reflection.
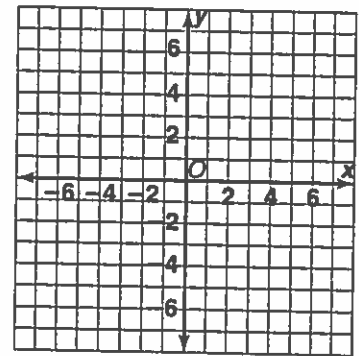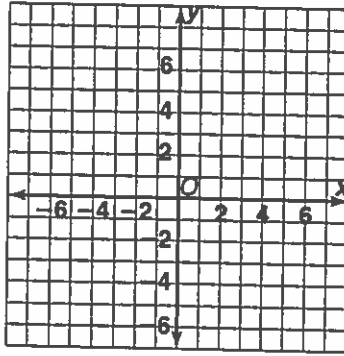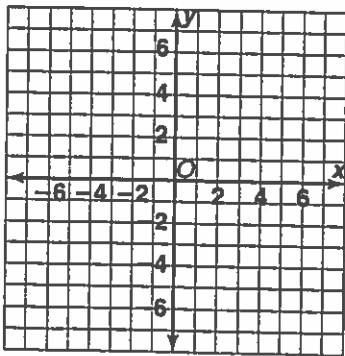Name the coordinates of the reflected point.

5. $A(5, -4)$ over the
   vertical dashed line

6. $B(-3, 2)$ over the
   horizontal dashed line

_____

_____

7. $C(-5, 0)$ over the y-axis

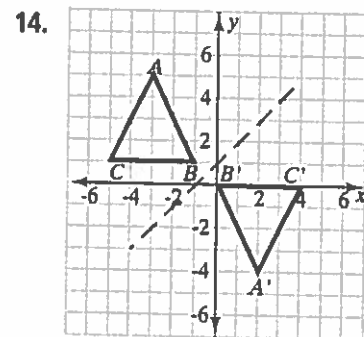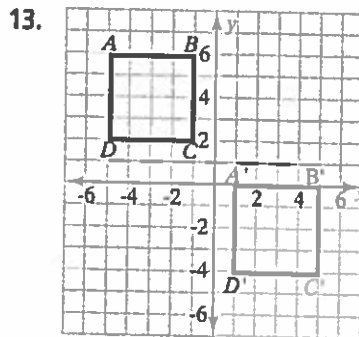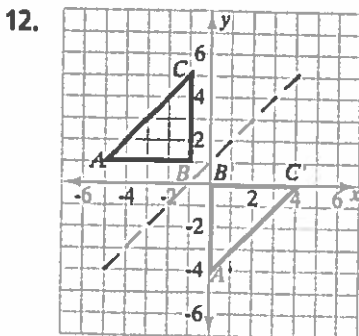8. $D(3, 4)$ over the x-axis

_____

_____

$\triangle ABC$ has vertices $A(2, 1)$, $B(3, -5)$, and $C(-2, 4)$. Graph $\triangle ABC$ and its image,
$\triangle A'B'C'$, after a reflection over each line. Name the coordinates of A', B', and C'.

9. the x-axis

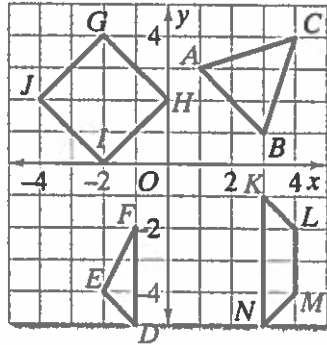10. the line through $(-1, 2)$
    and $(1, 2)$

11. the y-axis

_____

_____

_____

_____

_____

_____

Fold your paper over each dashed line. Are the figures reflections of
each other over the given line?

12.

13.

14.

_____

_____

_____

Practice

Puzzle 3-7

Reflections and Symmetry

Study the figures in the coordinate plane. Find the points of each figure if it is reflected as described below.

1. triangle *ABC* reflected across the *y*-axis
2. triangle *ABC* reflected across the *x*-axis
3. triangle *DEF* reflected across the *y*-axis
4. triangle *DEF* reflected across the *x*-axis
5. rhombus *GHIJ* reflected across the *x*-axis
6. rhombus *GHIJ* reflected across the *y*-axis
7. trapezoid *KLMN* reflected across the *y*-axis
8. trapezoid *KLMN* reflected across the *x*-axis

O. $(1, -5) (2, -4) (1, -2)$
T. $(2, 4) (0, 2) (2, 0) (4, 2)$
G. $(-3, -1) (-4, -2) (-4, -4) (-3, -5)$
M. $(3, 5) (4, 4) (4, 2) (3, 1)$
F. $(-1, 3) (-4, 4) (-3, 1)$
N. $(3, -1) (4, -4) (1, -3)$
E. $(-1, 5) (-1, 2) (-2, 4)$
R. $(-2, 0) (0, -2) (-2, -4) (-4, -2)$

Check your answers.

The state flower of Alaska is the ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___.
    1 3 5 7 4 6   8 4 2 3 6