Notes Name_____

In Class Review 9.1-9.3

Date_____ Period____

Find the coordinates of the vertices of each figure after the given transformation.

1) translation: 4 units left and 3 units up
$D(1, -4)$, $C(4, -1)$, $X(4, -4)$

2) translation: 1 unit left and 1 unit down
$W(-4, 0)$, $Q(-1, 3)$, $N(-1, 0)$

3) translation: $(x, y) \rightarrow (x - 2, y)$
$A(1, 1)$, $L(2, 4)$, $P(4, 2)$

4) translation: $(x, y) \rightarrow (x - 2, y + 6)$
$N(-2, -5)$, $W(-3, -1)$, $P(2, -1)$, $Z(3, -5)$

5) translation: $(1, -1)$
$E(-3, -4)$, $H(-4, 0)$, $T(1, 1)$, $F(2, -3)$

6) translation: $(0, 3)$
$W(-4, -3)$, $N(-3, 2)$, $E(1, -2)$, $S(0, -3)$

7) reflection across the y-axis
$V(1, 1)$, $J(2, 3)$, $Q(5, 0)$, $N(4, 0)$

8) reflection across the x-axis
$W(-3, -4)$, $X(-4, -1)$, $Z(-1, 0)$, $U(-1, -4)$

9) reflection across the y-axis
$I(-1, -2)$, $W(-2, -1)$, $R(3, -1)$, $G(3, -3)$

10) reflection across the x-axis
$R(-1, 1)$, $D(3, 3)$, $Y(3, -2)$

11) reflection across $y = x$
$U(1, 3)$, $L(4, 4)$, $J(2, 2)$

12) reflection across $y = x$
$X(-3, -2)$, $A(-4, 0)$, $M(-1, 1)$, $I(0, -3)$

13) rotation 90° counterclockwise about the origin
$Z(-3, 0)$, $B(-1, 3)$, $N(-1, 2)$, $R(0, 2)$

14) rotation 180° about the origin
$L(1, -1)$, $G(5, 1)$, $E(5, -4)$

15) rotation 90° counterclockwise about the origin
$G(0, -2)$, $W(1, 0)$, $I(5, -3)$, $D(4, -5)$

16) rotation 180° about the origin
$I(-5, 1)$, $W(-4, 3)$, $C(-1, 1)$, $R(-3, -3)$

Answers to In Class Review 9.1-9.3

1) $D'(-3, -1)$, $C'(0, 2)$, $X'(0, -1)$
2) $W'(-5, -1)$, $Q'(-2, 2)$, $N'(-2, -1)$
3) $A'(-1, 1)$, $L'(0, 4)$, $P'(2, 2)$
4) $N'(-4, 1)$, $W'(-5, 5)$, $P'(0, 5)$, $Z'(1, 1)$
5) $E'(-2, -5)$, $H'(-3, -1)$, $T'(2, 0)$, $F'(3, -4)$
6) $W'(-4, 0)$, $N'(-3, 5)$, $E'(1, 1)$, $S'(0, 0)$
7) $J'(-2, 3)$, $Q'(-5, 0)$, $N'(-4, 0)$, $V'(-1, 1)$
8) $X'(-4, 1)$, $Z'(-1, 0)$, $U'(-1, 4)$, $W'(-3, 4)$
9) $W'(2, -1)$, $R'(-3, -1)$, $G'(-3, -3)$, $I'(1, -2)$
10) $D'(3, -3)$, $Y'(3, 2)$, $R'(-1, -1)$
11) $L'(4, 4)$, $J'(2, 2)$, $U'(3, 1)$
12) $A'(0, -4)$, $M'(1, -1)$, $I'(-3, 0)$, $X'(-2, -3)$
13) $Z'(0, -3)$, $B'(-3, -1)$, $N'(-2, -1)$, $R'(-2, 0)$
14) $L'(-1, 1)$, $G'(-5, -1)$, $E'(-5, 4)$
15) $G'(2, 0)$, $W'(0, 1)$, $I'(3, 5)$, $D'(5, 4)$
16) $I'(5, -1)$, $W'(4, -3)$, $C'(1, -1)$, $R'(3, 3)$