Geometry Name_____ ID: 1

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Assignment

Date_____ Period____

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

1) rotation 180° about the origin
$V(-4, 1)$, $U(-2, 4)$, $L(-2, 0)$

2) rotation 180° about the origin
$I(-4, 0)$, $X(-3, 3)$, $D(-1, -1)$

3) reflection across the y-axis
$A(-4, 4)$, $W(-2, 5)$, $D(-3, 0)$

4) translation: $(x, y) \rightarrow (x + 4, y - 1)$
$S(-5, -4)$, $R(-4, -1)$, $C(-3, -3)$

5) reflection across the x-axis
$Z(-4, -1)$, $J(-4, 4)$, $A(-1, 0)$

6) translation: $(x, y) \rightarrow (x - 8, y + 1)$
$U(3, -3)$, $F(3, 1)$, $C(5, -1)$

7) reflection across the y-axis
$D(1, -2)$, $A(2, 0)$, $F(4, -4)$

8) rotation 180° about the origin
$B(-1, 3)$, $L(3, 5)$, $M(2, 1)$

9) reflection across the x-axis
$Z(2, -5)$, $M(3, -2)$, $J(4, -5)$

10) reflection across the y-axis
$X(-5, -5)$, $M(-5, -1)$, $S(-3, -4)$

11) translation: 2 units right and 1 unit down
$P(-4, -2)$, $R(-1, 0)$, $Q(-3, -4)$

12) reflection across the y-axis
$C(-4, 2)$, $E(-2, 5)$, $N(0, 2)$

13) translation: 3 units right
$U(-4, -3)$, $W(1, -2)$, $B(1, -5)$

14) translation: 2 units right and 6 units up
$E(-5, -4)$, $D(0, -3)$, $F(-2, -5)$

15) rotation 180° about the origin
$U(0, 1)$, $J(0, 3)$, $X(4, 4)$

16) rotation 180° about the origin
$J(-4, 1)$, $A(1, 3)$, $M(1, 1)$

17) translation: 2 units up
$B(-4, 1)$, $U(-4, 3)$, $G(-2, 3)$

18) translation: 3 units right and 2 units down
$Z(-4, 1)$, $Y(-4, 3)$, $L(-2, 3)$

19) rotation 90° counterclockwise about the origin
$J(-1, 2)$, $L(2, 3)$, $W(4, 0)$

20) reflection across the x-axis
$F(1, 2)$, $T(1, 5)$, $L(5, 4)$

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Assignment

Date_____ Period____

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

1) rotation 180° about the origin
$V(-4, 1)$, $U(-2, 4)$, $L(-2, 0)$
$V'(4, -1)$, $U'(2, -4)$, $L'(2, 0)$

2) rotation 180° about the origin
$I(-4, 0)$, $X(-3, 3)$, $D(-1, -1)$
$I'(4, 0)$, $X'(3, -3)$, $D'(1, 1)$

3) reflection across the y-axis
$A(-4, 4)$, $W(-2, 5)$, $D(-3, 0)$
$W'(2, 5)$, $D'(3, 0)$, $A'(4, 4)$

4) translation: $(x, y) \rightarrow (x + 4, y - 1)$
$S(-5, -4)$, $R(-4, -1)$, $C(-3, -3)$
$S'(-1, -5)$, $R'(0, -2)$, $C'(1, -4)$

5) reflection across the x-axis
$Z(-4, -1)$, $J(-4, 4)$, $A(-1, 0)$
$J'(-4, -4)$, $A'(-1, 0)$, $Z'(-4, 1)$

6) translation: $(x, y) \rightarrow (x - 8, y + 1)$
$U(3, -3)$, $F(3, 1)$, $C(5, -1)$
$U'(-5, -2)$, $F'(-5, 2)$, $C'(-3, 0)$

7) reflection across the y-axis
$D(1, -2)$, $A(2, 0)$, $F(4, -4)$
$A'(-2, 0)$, $F'(-4, -4)$, $D'(-1, -2)$

8) rotation 180° about the origin
$B(-1, 3)$, $L(3, 5)$, $M(2, 1)$
$B'(1, -3)$, $L'(-3, -5)$, $M'(-2, -1)$

9) reflection across the x-axis
$Z(2, -5)$, $M(3, -2)$, $J(4, -5)$
$M'(3, 2)$, $J'(4, 5)$, $Z'(2, 5)$

10) reflection across the y-axis
$X(-5, -5)$, $M(-5, -1)$, $S(-3, -4)$
$M'(5, -1)$, $S'(3, -4)$, $X'(5, -5)$

11) translation: 2 units right and 1 unit down
$P(-4, -2)$, $R(-1, 0)$, $Q(-3, -4)$
$P'(-2, -3)$, $R'(1, -1)$, $Q'(-1, -5)$

12) reflection across the y-axis
$C(-4, 2)$, $E(-2, 5)$, $N(0, 2)$
$E'(2, 5)$, $N'(0, 2)$, $C'(4, 2)$

13) translation: 3 units right
$U(-4, -3)$, $W(1, -2)$, $B(1, -5)$
$U'(-1, -3)$, $W'(4, -2)$, $B'(4, -5)$

14) translation: 2 units right and 6 units up
$E(-5, -4)$, $D(0, -3)$, $F(-2, -5)$
$E'(-3, 2)$, $D'(2, 3)$, $F'(0, 1)$

15) rotation 180° about the origin
$U(0, 1)$, $J(0, 3)$, $X(4, 4)$
$U'(0, -1)$, $J'(0, -3)$, $X'(-4, -4)$

16) rotation 180° about the origin
$J(-4, 1)$, $A(1, 3)$, $M(1, 1)$
$J'(4, -1)$, $A'(-1, -3)$, $M'(-1, -1)$

17) translation: 2 units up
$B(-4, 1)$, $U(-4, 3)$, $G(-2, 3)$
$B'(-4, 3)$, $U'(-4, 5)$, $G'(-2, 5)$

18) translation: 3 units right and 2 units down
$Z(-4, 1)$, $Y(-4, 3)$, $L(-2, 3)$
$Z'(-1, -1)$, $Y'(-1, 1)$, $L'(1, 1)$

19) rotation 90° counterclockwise about the origin
$J(-1, 2)$, $L(2, 3)$, $W(4, 0)$
$J'(-2, -1)$, $L'(-3, 2)$, $W'(0, 4)$

20) reflection across the x-axis
$F(1, 2)$, $T(1, 5)$, $L(5, 4)$
$T'(1, -5)$, $L'(5, -4)$, $F'(1, -2)$

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