Name: _____     Date: _____
Geometry // Mr. Falci

1.    Which transformation(s) are direct isometries?

    _____


2.    Which transformation(s) are opposite isometries?

    _____


3.    Which transformation(s) are not isometries?

    _____


4.    Which properties are preserved in a *rotation*? (mark all that apply)

    (1)  parallelism                    (3)  angle measure

    (2)  distance                       (4)  orientation


5.    Which properties are preserved in a *dilation*? (mark all that apply)

    (1)  parallelism                    (3)  angle measure

    (2)  distance                       (4)  orientation


6.    Which properties are *not* preserved in a *reflection*? (mark all that apply)

    (1)  parallelism                    (3)  angle measure

    (2)  distance                       (4)  orientation

7.    Triangle *ABC* has coordinates *A*(1,1), *B*(5,1), and *C*(4,3). Given the transformations *T*, *U*, and *W* described below:

$$T: (x,y) \rightarrow (x,-y)$$
$$U: (x,y) \rightarrow (x-6,y+6)$$
$$W: (x,y) \rightarrow (-2x,-2y)$$

a. Graph *ABC* and graph and state the coordinates of its image *A'B'C'*, after transformation *T*.

b. Graph and state the coordinates of *A"B"C"*, the image of *ABC* after transformation *U*.

c. Graph and state the coordinates of *A'''B'''C'''*, the image of *ABC* after transformation *W*.

d. Which transformation, *T*, *U*, or *W*, is *not* an isometry?

_____

e. Which transformation, *T*, *U*, or *W*, does *not* preserve orientation?

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