G.CO.A.2: Identifying Transformations 2

1 One function of a movie projector is to enlarge the image on the film. This procedure is an example of a
   1) line of symmetry
   2) line reflection
   3) translation
   4) dilation

2 Which transformation can map the letter **S** onto itself?
   1) glide reflection
   2) translation
   3) line reflection
   4) rotation

3 A transformation of a polygon that always preserves both length and orientation is
   1) dilation
   2) translation
   3) line reflection
   4) glide reflection

4 Which transformation does *not* preserve orientation?
   1) translation
   2) dilation
   3) reflection in the *y*-axis
   4) rotation

5 Which transformation produces a figure that is always the mirror image of the original figure?
   1) line reflection
   2) dilation
   3) translation
   4) rotation

6 Which transformation does not always result in an image that is congruent to the original figure?
   1) dilation
   2) reflection
   3) rotation
   4) translation

7 After which transformation of $\triangle ABC$ could the image $\triangle A'B'C'$ *not* have the same area?
   1) translation
   2) rotation
   3) point reflection
   4) dilation

8 Which transformation produces a figure similar but not congruent to the original figure?
   1) $T_{1,3}$
   2) $D_{\frac{1}{2}}$
   3) $R_{90°}$
   4) $r_{y=x}$

9 Point P' is the image of point $P(-3,4)$ after a translation defined by $T_{(7,-1)}$. Which other transformation on P would also produce P'?
   1) $r_{y=-x}$
   2) r_{y-axis}
   3) $R_{90°}$
   4) $R_{-90°}$

10 Which transformation is a direct isometry?
   1) D_2
   2) D_{-2}
   3) r_{y-axis}
   4) $T_{2,5}$

11 Which transformation is an opposite isometry?
   1) dilation
   2) line reflection
   3) rotation of 90°
   4) translation

12 Which transformation is *not* always an isometry?
   1) rotation
   2) dilation
   3) reflection
   4) translation

13 Which transformation is *not* an isometry?
   1) $r_{y=x}$
   2) $R_{0,90°}$
   3) $T_{3,6}$
   4) D_2

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Answer Section

  1 ANS: 4   REF: 060603a
  2 ANS: 4   REF: 061015ge
  3 ANS: 2   REF: 081015ge
  4 ANS: 3   REF: 060218b
  5 ANS: 1   REF: 010809a
  6 ANS: 1   REF: 080611a
  7 ANS: 4   REF: 089618siii
  8 ANS: 2

A dilation affects distance, not angle measure.

     REF: 080906ge
  9 ANS: 4   REF: 060217b
10 ANS: 4   REF: 080105b
11 ANS: 2   REF: 060313b
12 ANS: 2   REF: 011006ge
13 ANS: 4   REF: 010210b