**Test**: Transformations

**1.**

**

**2.**

**

**3.**

**

**4.** Triangle *DEG* has the coordinates *D*(2, 1), *E*(6, 2), and *G*(6, 6). Triangle *DEG* is translated *T*-8, +1 . Complete the table mapping each coordinate pair onto its image, then plot and label both triangles on the grid.

*T*-8, +1

*D*(2, 1) →

*E*(6, 2) →

*G*(6, 6) →

**

Justify that the transformation preserves distance.

**5.**

**

**6.** The point *A* is located at (4, -7). The point is reflected in the *y*-axis.

Its image is located at

**

**7.**

**

**8.**

**

**9.**

**

**10.**

**

**

**1**

**

**12.**

**

Triangle *DEG* has the coordinate *D*(1, 1), *E*(5, 1), and *G*(5, 4). Triangle *DEG* is translated *T*+2, -6 . Make a table mapping each coordinate pair into its image, then plot both triangles on the grid.

**

Justify that the transformation preserves distance.

**

**