Practice 9-6

Compositions of Reflections

Match each image of the figure at the left with one of the following isometries:
A. reflection   B. rotation   C. translation   D. glide reflection.

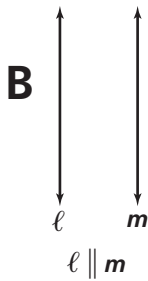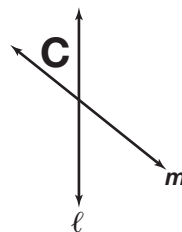I. _____   II. _____   III. _____   IV. _____

1. PUSH→   ↑PUSH   PUSH→   PUSH→   ←HSUꟼ

Find the image of each letter through a reflection across line ℓ and then
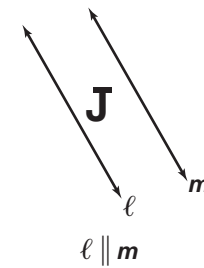**a reflection across line *m*. Describe the resulting translation.**
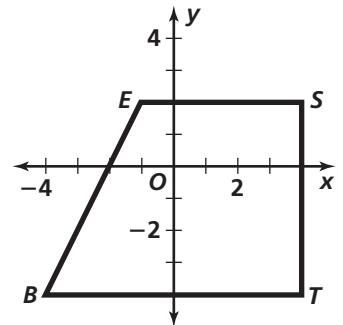
2.

B

ℓ   *m*

ℓ ∥ *m*

3.

C

m

ℓ

4.

J

ℓ   *m*

ℓ ∥ *m*

Find the glide reflection image of △ *BEST* for the given glide and
reflection line.

5. $(x, y) \rightarrow (x - 2, y)$ and $x = 0$
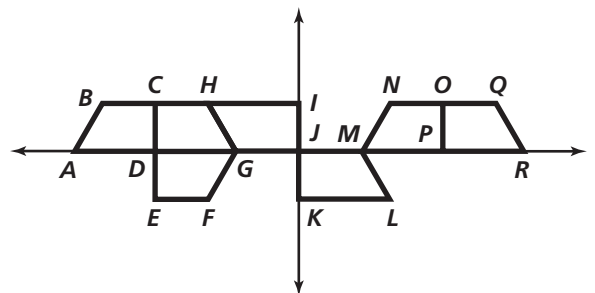
6. $(x, y) \rightarrow (x - 1, y + 1)$ and $y = 0$

State whether each mapping is a reflection, rotation, translation,
or glide reflection.

7. △ *ABCD* → △ *GHCD* _____

8. △ *HGJI* → △ *LMJK* _____

9. △ *GFED* → △ *RQOP* _____

10. △ *MNOP* → △ *ABCD* _____