



Rigid motions

GRADE 8 MATH

Name _____

Date _____

Tracing paper and a ruler. Measure rather than assume.

WORKED EXAMPLE

Rigid motions change position only. Reflection reverses the corner order; rotation does not.

1. Translate $(2,1)$, $(5,1)$, $(2,4)$ by 3 left and 1 down. Give the new corners.

APPLICATION

Show your thinking

Answer

2. Reflect $(2,3)$ in the x-axis. Then reflect $(2,3)$ in the y-axis.

APPLICATION

Show your thinking

Answer

3. A shape's sides are 5, 7 and 9 cm. After a translation, what are they?

FLUENCY

Show your thinking

Answer

4. A shape's angles are 30° , 60° and 90° . After a reflection, what are they?

FLUENCY

Show your thinking

Answer

5. Explain how you would tell whether a shape had been reflected or rotated.

REASONING

Show your thinking

Answer

6. Two lines are parallel. After a rotation, must they still be parallel? Explain.

REASONING

Show your thinking

Answer

7. Sam says a translation of 0 right and 0 up is not a real transformation. Is he right?

REASONING

Show your thinking

Answer

8. Why does the standard ask you to VERIFY these properties rather than just learn them?

REASONING

Show your thinking

Answer