- How many lines of symmetry does a square have? Can you use the mirror to show them?

fig.4-4

5 Discovering congruence

Draw two circles on a paper. Place the mirror, without its backing card, between them. Move the mirror until the reflected image of the circle in front of the mirror is aligned with the circle seen through the mirror.

fig.5-1

If the image and the circle match the two circles are congruent. They are identical in form and size.
Which circle, B or C, is identical in form and size with Circle A? Can you use the mirror to find it out?
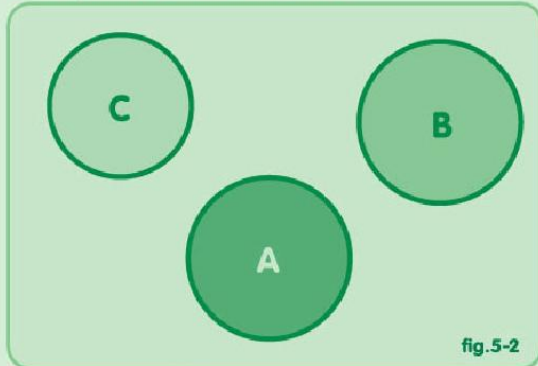
C

B

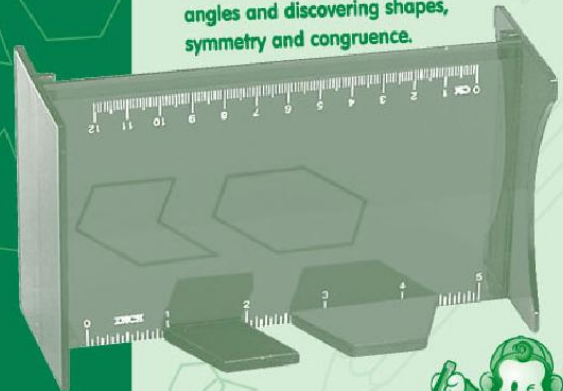A

fig.5-2

Gigo®

MATH MIRROR

A hands-on tool for measuring length, angles and discovering shapes, symmetry and congruence.

- Used to learn about and to analyze geometric shapes, congruence, similarity and symmetry of the shapes.
- With blue backing card, it acts as a real mirror.
- With metric and imperial graduation on the edges and protractor on the end, good for drawing and measuring.

5+

A Math Mirror includes the following parts-

Edge with imperial graduation

Blue backing card

Edge with metric graduation (beveled edge)

End with Protractor (0 line)
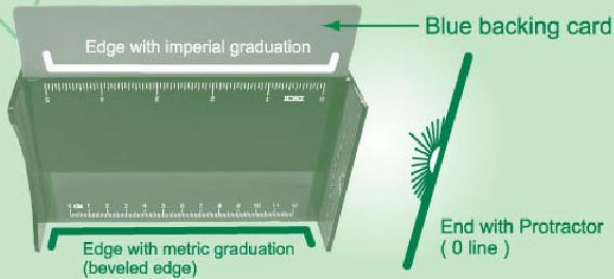
How to use Math Mirror • • • •

1 Drawing and Measuring a certain length

The mirror has metric graduation on one edge and imperial one on the other, ideal for drawing and measuring a certain length.

fig.1

2 Measuring angles

The mirror has a protractor on one end for measuring the angles. Position the edge of the protractor so that the " 0 " line is aligned with one side of the angle and the center of this " 0 " line matches the angle point. The numbered line that aligns with the other side of the angle tells the degree of the angle.
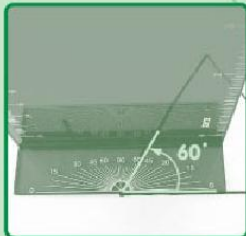
fig.2

3 Discovering spatial relationships

Place the mirror so that the geo shape and its reflected image are head-to-head, side-by-side, close to or far apart and observe what happens when the mirror is removing to identify transformations and spatial relationships.
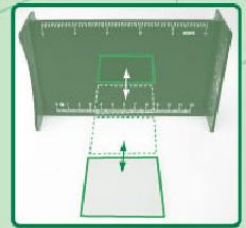
fig.3

4 Discovering and testing symmetry

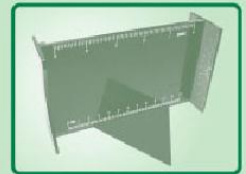Place a geo shape against the mirror to show how the shape and its reflection combine to make a symmetric shape.
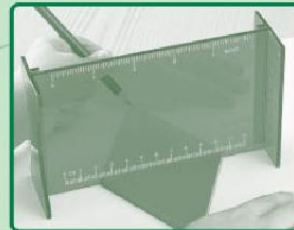
fig.4-1

A symmetric shape has two halves that are reflections of each other. Then, remove the blue backing card to trace the symmetric shape (the shape and its reflection) on the paper with a pencil.
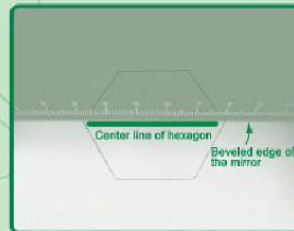
fig.4-2

Place the beveled edge of the mirror (without its backing card) along the center line of a shape. If the reflected image and the half of the shape that can be seen through the mirror align exactly, the shape is symmetric. Use this way to test symmetry.

Center line of hexagon

Beveled edge of the mirror

fig.4-3