

Solutions to the Symmetry Diagnostic Worksheet

Solutions are shown at right. Some common difficulties are listed below:

Square: Diagonal lines of symmetry might be missed.

Equilateral triangle: Some students may only find the vertical line.

Rectangle: The diagonals might be included.

Regular pentagon: Some lines might be omitted.

Blob: If a student places a line on this one, then the student probably has no idea what symmetry means.

Arrowhead: Because the line of symmetry is not horizontal or vertical it may be missed.

Ellipse: One or both lines might be omitted because they are not horizontal or vertical.

Square/diamond: Either the sloping lines (from side to side) might be missing because they are not horizontal or vertical; or the corner pair of lines might be omitted.

8-pointed star: Students usually find the lines joining opposite "spikes", but may miss the ones that connect the pairs of opposite "valleys"

Scalene triangle: Students may try to place a line somewhere, even though there are no lines of symmetry

Parallelogram: Many students will mark the diagonals as lines of symmetry. Some students may also mark vertical and/or horizontal lines, roughly halfway along each side.

Snowflake: Most students will mark the three lines that connect opposite arms of the snowflake but many will miss the lines between.

X: Some students may miss the pair of lines running down the middle of the arms of the X; others may miss the vertical and horizontal lines joining the opposite valleys.

For each of the shapes below, mark in all the lines of symmetry that you can find.

