

**YOU & MATHS** Which of the following statements is *not* true?

- ☐ **A** A reflection in a line is congruent to the original figure.
- ☐ **B** Corresponding sides of a figure and its reflection in a line are parallel.
- ☐ **C** Corresponding sides of a figure and its reflection in a line are congruent.
- ☐ **D** The line of symmetry bisects a segment connecting corresponding points of a figure and its reflection.
- ☐ **E** The line of symmetry is perpendicular to a segment connecting corresponding points of a figure and its reflection.

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Answer A is true. A reflection in a line is congruent to the original figure because it is an isometry.

Answer B is false. Corresponding sides of a figure and its reflection in a line are parallel only if they are parallel to the line of symmetry.

Answer C is true. Corresponding sides of a figure and its reflection in a line are congruent because a reflection is an isometry.

Answer D is true. The line of symmetry bisects a segment connecting corresponding points of a figure and its reflection because, by the definition of reflection in a line, two corresponding points have same distance from the line of symmetry.

Answer E is true. The line of symmetry is perpendicular to a segment connecting corresponding points of a figure and its reflection because, by the definition of reflection in a line, two corresponding points lie on a line that is perpendicular to the line of symmetry.

Our final answer is therefore B.