4.7 Cube Nets: 10-minute Pack

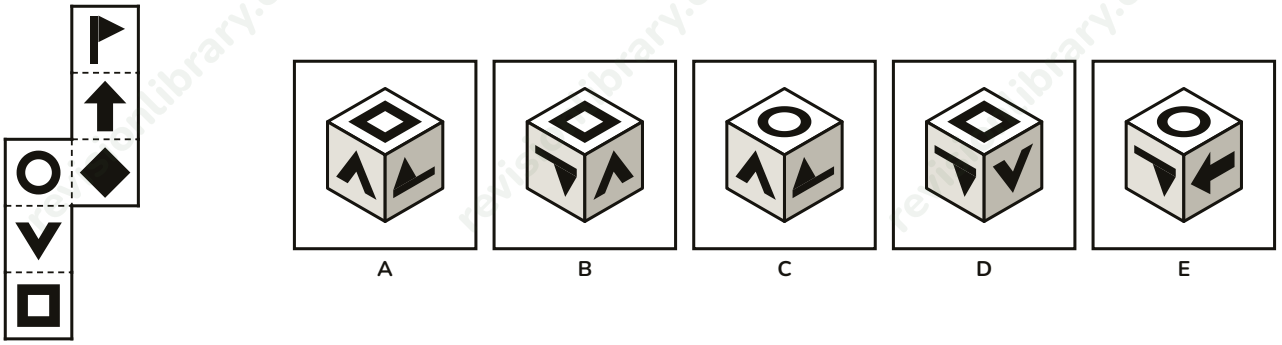
GL ASSESSMENT GL-EP.N9 · Calculators not allowed · about 10 minutes

Total Marks

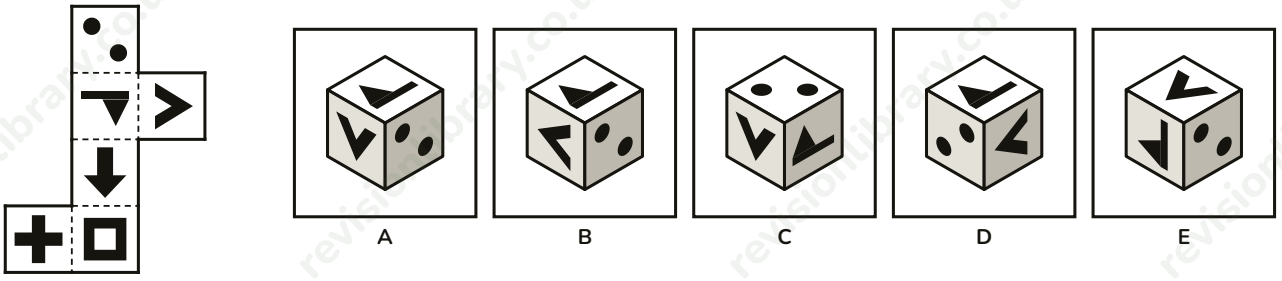
Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 The flat net in the diagram is folded along the dotted lines to make a cube, with the symbols on the outside. Each option shows a cube from a corner, with its top, left and right faces in view. Which option, A to E, could be the resulting cube?

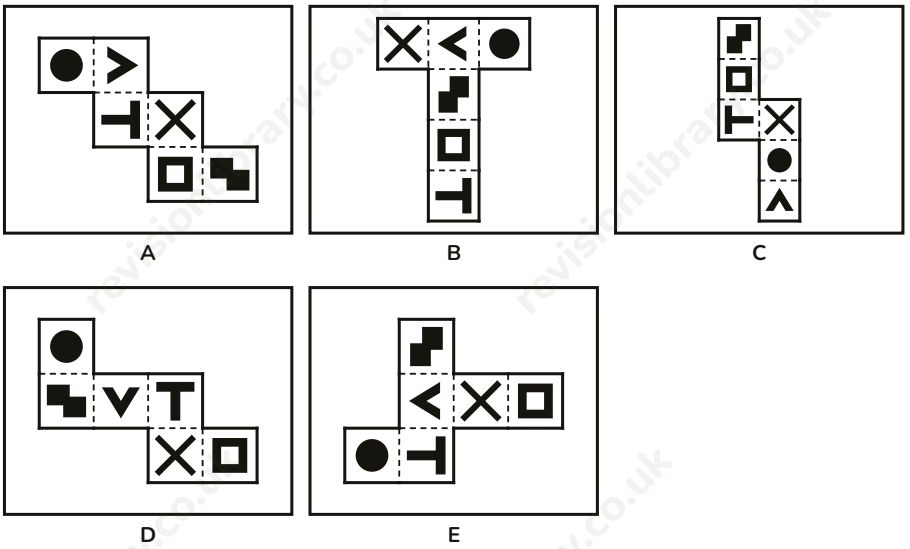


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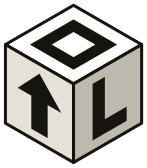
3 The cube in the diagram shows three of its faces, with the symbols on the outside. Which net, A to E, folds along the dotted lines to make this cube?

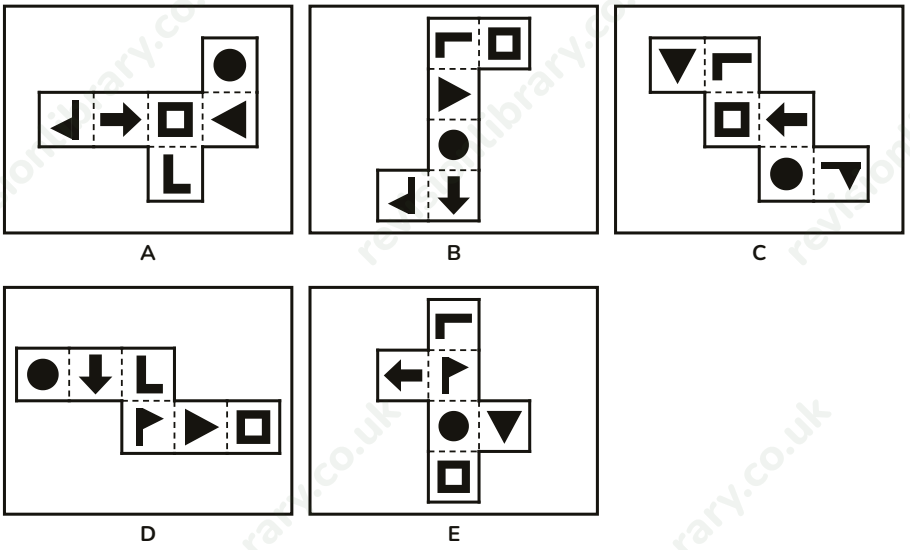




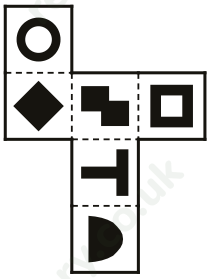
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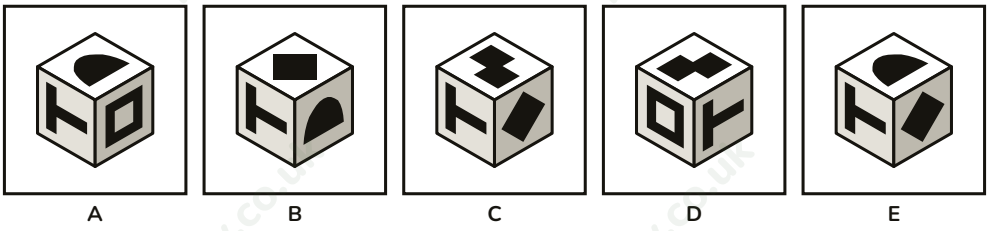
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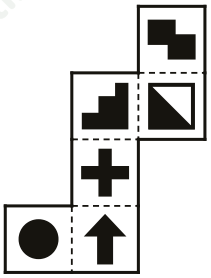


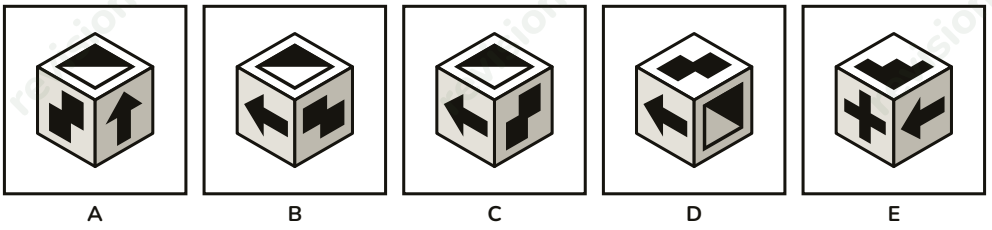
5 The flat net in the diagram is folded along the dotted lines to make a cube, with the symbols on the outside. Each option shows a cube from a corner, with its top, left and right faces in view. Which option, A to E, could be the resulting cube?



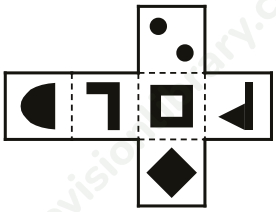


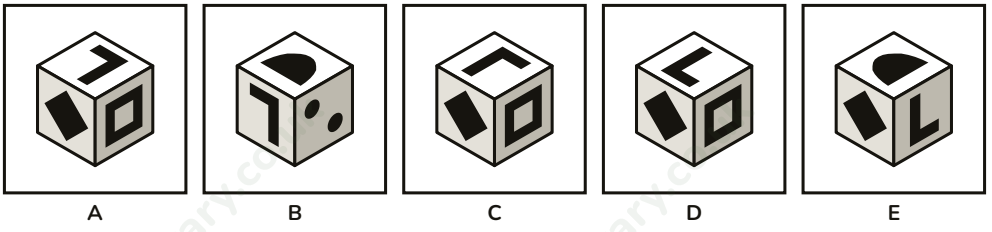
6





7





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Mark scheme · 4.7 Cube Nets: 10-minute Pack

Question 1

Option A is correct: Isometric corner view of a cube showing three faces. TOP face: a square frame. LEFT face: a chevron (turned upside down). RIGHT face: a flag on a pole (turned a quarter turn anticlockwise). This is what the net folds to when it is turned to show these three faces. Option B is wrong: a diamond appears where a flag on a pole should be: they are on opposite faces, so they can never meet at a corner. Option C is wrong: a ring appears where a square frame should be: they are on opposite faces, so they can never meet at a corner. Option D is wrong: a chevron and a flag on a pole have swapped places. Option E is wrong: an arrow appears where a chevron should be: they are on opposite faces, so they can never meet at a corner. **B1**

Answer: A) Isometric corner view of a cube showing three faces. TOP face: a square frame. LEFT face: a chevron (turned upside down). RIGHT face: a flag on a pole (turned a quarter turn anticlockwise).

Question 2

Option A is correct: Isometric corner view of a cube showing three faces. TOP face: a flag on a pole (turned upside down). LEFT face: a chevron (upright). RIGHT face: two dots on a diagonal (upright). This is what the net folds to when it is turned to show these three faces. Option B is wrong: the a chevron has been turned the wrong way. Option C is wrong: a flag on a pole and two dots on a diagonal have swapped places. Option D is wrong: a chevron and two dots on a diagonal have swapped places. Option E is wrong: a flag on a pole and a chevron have swapped places. **B1**

Answer: A) Isometric corner view of a cube showing three faces. TOP face: a flag on a pole (turned upside down). LEFT face: a chevron (upright). RIGHT face: two dots on a diagonal (upright).

Question 3

Option D is correct: it folds to a cube with a chevron (turned upside down) on the top, a solid circle on the left, a skew block shape (two offset bars) (turned a quarter turn) on the right. Option A is wrong: when folded, a letter T appears where a skew block shape (two offset bars) should be: they are on opposite faces, so they can never meet at a corner. Option B is wrong: when folded, a square frame appears where a chevron should be: they are on opposite faces, so they can never meet at a corner. Option C is wrong: when folded, a chevron and a solid circle have swapped places. Option E is wrong: when folded, a diagonal cross appears where a solid circle should be: they are on opposite faces, so they can never meet at a corner. **B1**

Answer: D) Net of six squares. Row 1 (from the top): column 1: a solid circle. Row 2 (from the top): column 1: a skew block shape (two offset bars) (upright), then column 2: a chevron (upright), then column 3: a letter T (upright). Row 3 (from the top): column 3: a diagonal cross, then column 4: a square frame.

Question 4

Option A is correct: it folds to a cube with a square frame on the top, an arrow (upright) on the left, an L shape with a long upright stroke and a short foot (upright) on the right. Option B is wrong: when folded, the an arrow has been turned the wrong way. Option C is wrong: when folded, the an L shape with a long upright stroke and a short foot has been turned the wrong way. Option D is wrong: when folded, the an arrow has been turned the wrong way. Option E is wrong: when folded, the an L shape with a long upright stroke and a short foot has been turned the wrong way. **B1**

Answer: A) Net of six squares. Row 1 (from the top): column 4: a solid circle. Row 2 (from the top): column 1: a flag on a pole (turned upside down), then column 2: an arrow (turned a quarter turn clockwise), then column 3: a square frame, then column 4: a triangle (turned a quarter turn anticlockwise). Row 3 (from the top): column 3: an L shape with a long upright stroke and a short foot (upright).

Question 5

Option E is correct: Isometric corner view of a cube showing three faces. TOP face: a half disc (turned upside down). LEFT face: a letter T (turned a quarter turn anticlockwise). RIGHT face: a diamond. This is what the net folds to when it is turned to show these three faces. Option C is wrong: a skew block shape (two offset bars) appears where a half disc should be: they are on opposite faces, so they can never meet at a corner. Option B is wrong: a half disc and a diamond have swapped places. Option A is wrong: a square frame appears where a diamond should be: they are on opposite faces, so they can never meet at a corner. Option D is wrong: a ring appears where a letter T should be: they are on opposite faces, so they can never meet at a corner. **B1**

Answer: E) Isometric corner view of a cube showing three faces. TOP face: a half disc (turned upside down). LEFT face: a letter T (turned a quarter turn anticlockwise). RIGHT face: a diamond.

Question 6

Option B is correct: Isometric corner view of a cube showing three faces. TOP face: a square with one corner triangle shaded (upright). LEFT face: an arrow (turned a quarter turn anticlockwise). RIGHT face: a skew block shape (two offset bars) (upright). This is what the net folds to when it is turned to show these three faces. Option A is wrong: an arrow and a skew block shape (two offset bars) have swapped places. Option C is wrong: the a skew block shape (two offset bars) has been turned the wrong way. Option D is wrong: a square with one corner triangle shaded and a skew block shape (two offset bars) have swapped places. Option E is wrong: a square with one corner triangle shaded and an arrow have swapped places. **B1**

Answer: B) Isometric corner view of a cube showing three faces. TOP face: a square with one corner triangle shaded (upright). LEFT face: an arrow (turned a quarter turn anticlockwise). RIGHT face: a skew block shape (two offset bars) (upright).

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Question 7

Option A is correct: Isometric corner view of a cube showing three faces. TOP face: an L shape with a long upright stroke and a short foot (turned upside down). LEFT face: a diamond. RIGHT face: a square frame. This is what the net folds to when it is turned to show these three faces. Option B is wrong: the an L shape with a long upright stroke and a short foot has been turned the wrong way. Option C is wrong: the an L shape with a long upright stroke and a short foot is shown as a mirror image. Option D is wrong: the an L shape with a long upright stroke and a short foot has been turned the wrong way. Option E is wrong: the an L shape with a long upright stroke and a short foot has been turned the wrong way. **B1**

Answer: A) Isometric corner view of a cube showing three faces. TOP face: an L shape with a long upright stroke and a short foot (turned upside down). LEFT face: a diamond. RIGHT face: a square frame.

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