4.8 3D Block Counting: 1-hour Pack

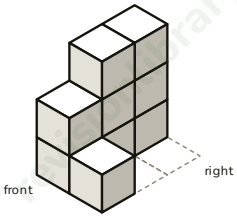
GL ASSESSMENT GL-EP.N10 · Calculators not allowed · about 60 minutes

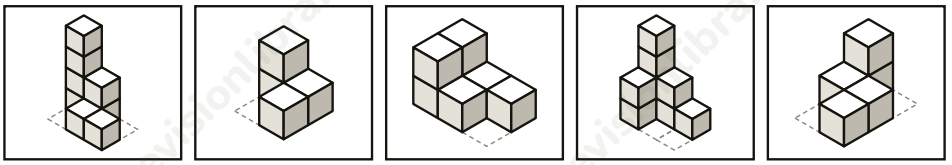
Total Marks

Name: _____ Date: ____ / ____ / _____

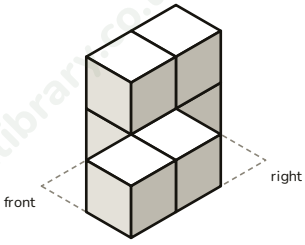
Answer ALL questions. Show all your working.

1 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 2 fewer cubes than the solid shown?



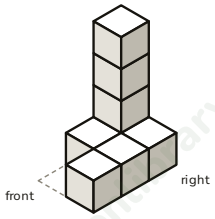


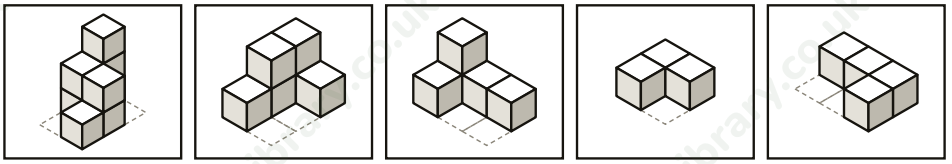
2 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



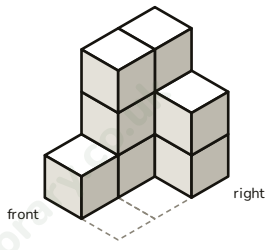
A	B	C	D	E
4	6	2	5	3

3 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 2 fewer cubes than the solid shown?





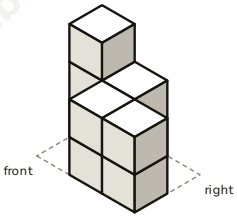
4 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?

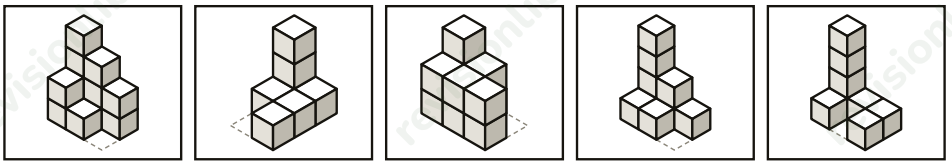


A	B	C	D	E
9	5	6	3	4

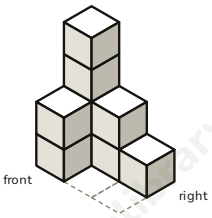
© Revision Library | revisionlibrary.co.uk

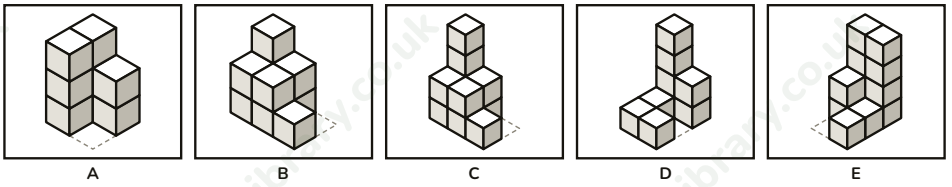
5 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?



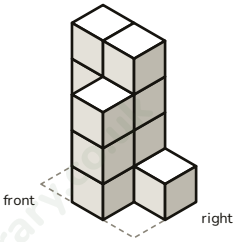


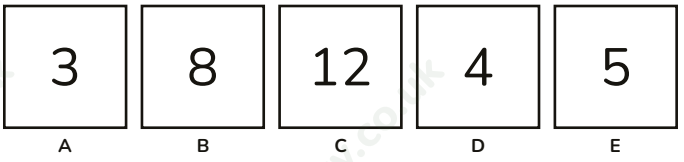
6



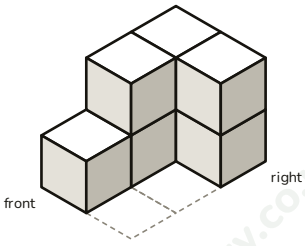


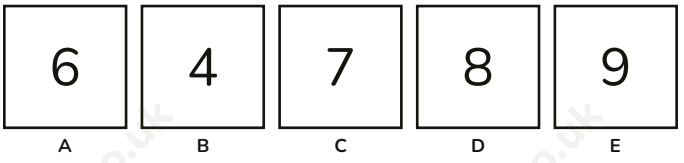
7 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



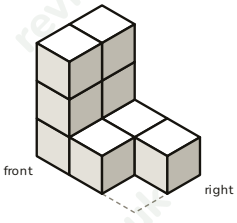


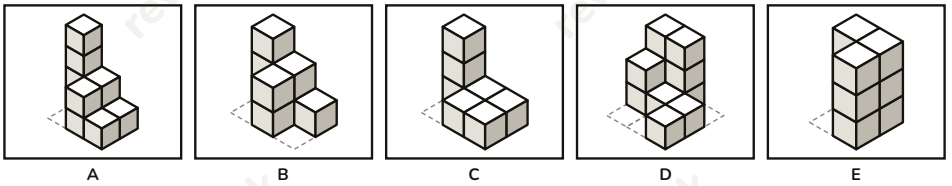
8 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many unit cubes make up this solid altogether?





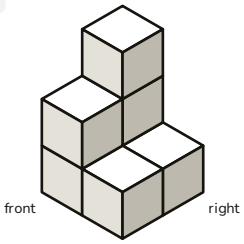
9 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?





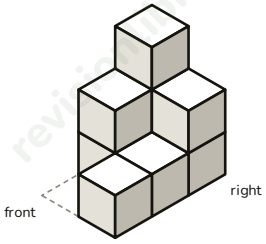
© Revision Library | revisionlibrary.co.uk

10 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



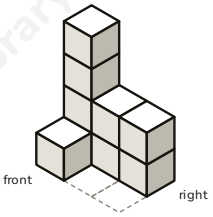
A	B	C	D	E
3	4	6	7	5

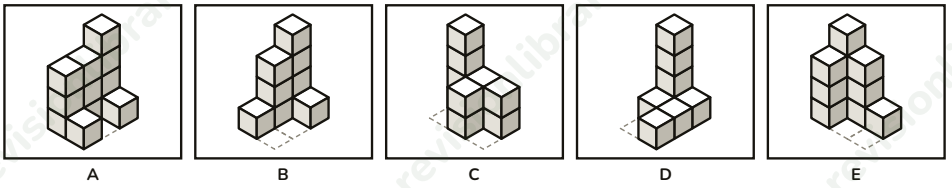
11 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many cubes would have to be removed from this solid so that only a single layer (every stack one cube high) is left?



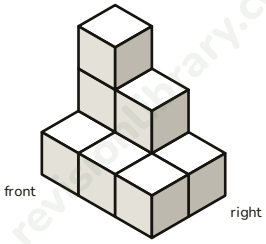
A	B	C	D	E
3	5	6	4	9

12 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 1 more cube than the solid shown?





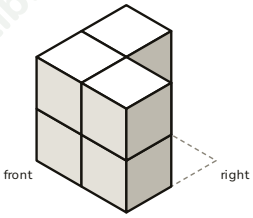
13 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many cubes would have to be removed from this solid so that only a single layer (every stack one cube high) is left?

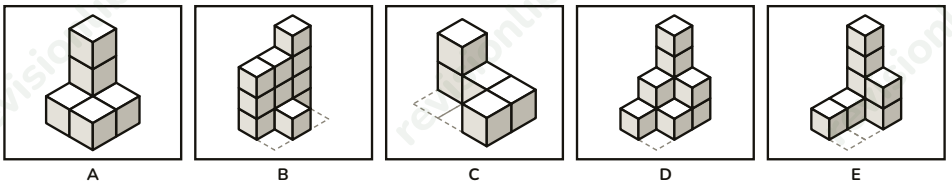


A	B	C	D	E
3	9	2	6	4

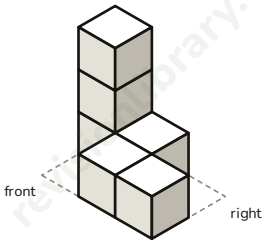
© Revision Library | revisionlibrary.co.uk

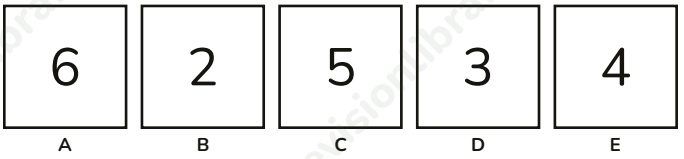
14 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 2 more cubes than the solid shown?



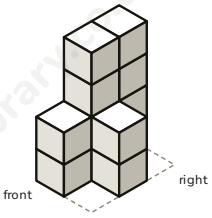


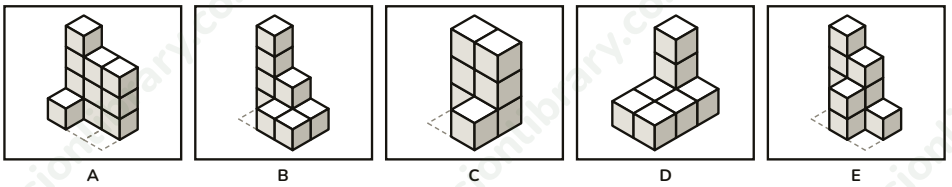
15 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



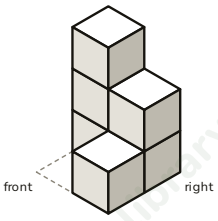


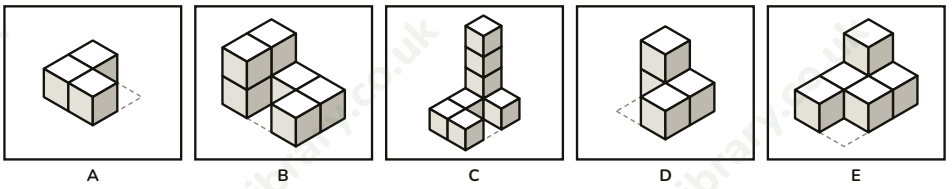
16 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 3 fewer cubes than the solid shown?



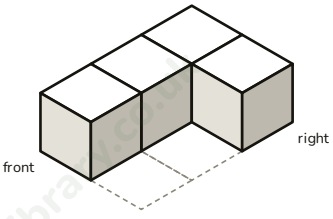


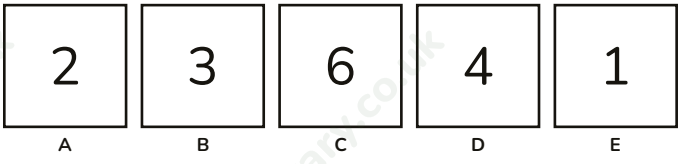
17 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?





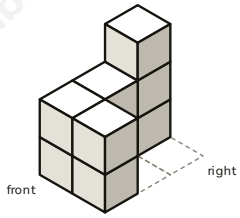
18 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. This solid stands inside an invisible box measuring 2 x 3 x 1 unit cubes (so a completely full box would need 6 cubes in total). How many extra unit cubes would need to be added to fill the box completely, with no gaps?

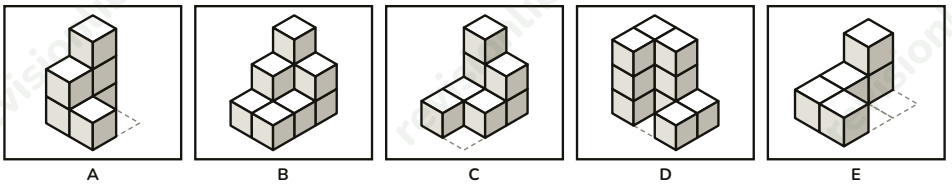




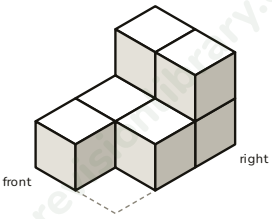
© Revision Library | revisionlibrary.co.uk

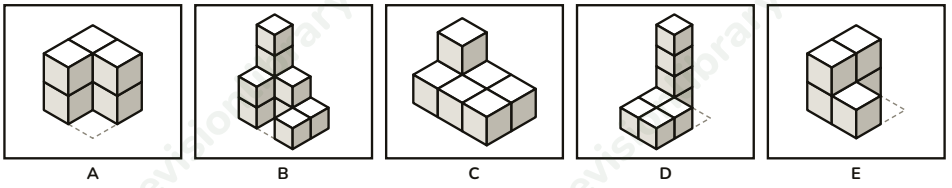
19 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 1 fewer cube than the solid shown?



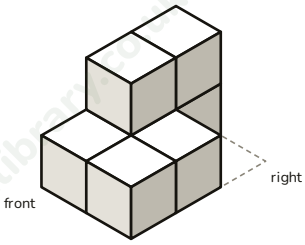


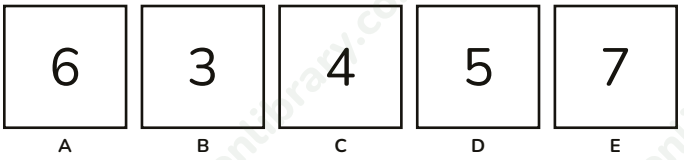
20 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 1 more cube than the solid shown?



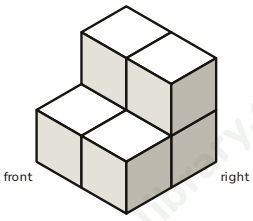


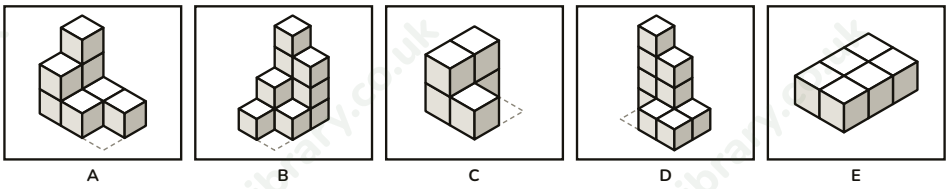
21 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



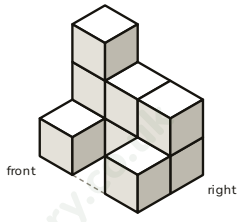


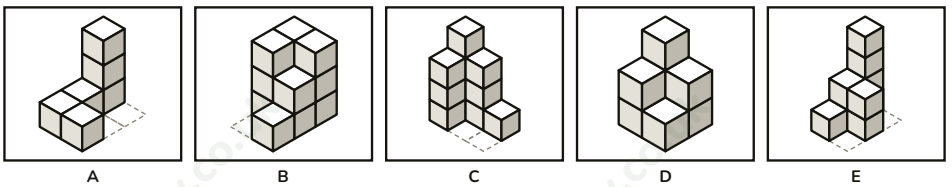
22 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 2 more cubes than the solid shown?





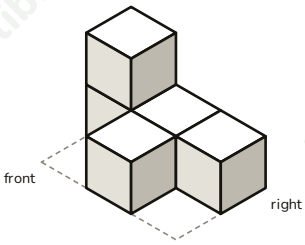
23 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?





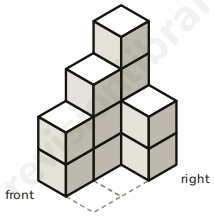
© Revision Library | revisionlibrary.co.uk

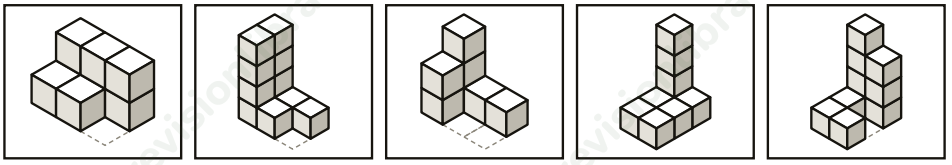
24 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many unit cubes make up this solid altogether?



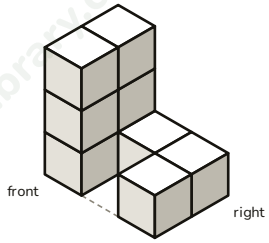
A	B	C	D	E
7	5	3	6	4

25 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 2 fewer cubes than the solid shown?



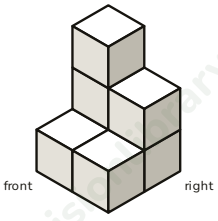


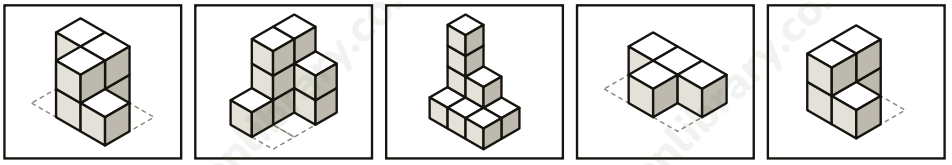
26 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. This solid stands inside an invisible box measuring 3 x 2 x 3 unit cubes (so a completely full box would need 18 cubes in total). How many extra unit cubes would need to be added to fill the box completely, with no gaps?



A	B	C	D	E
11	10	9	8	18

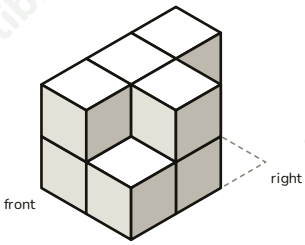
27 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?





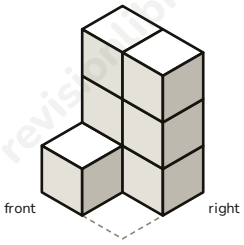
© Revision Library | revisionlibrary.co.uk

28 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



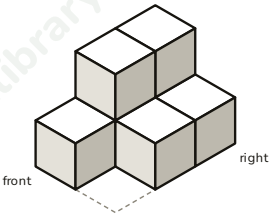
A	B	C	D	E
6	9	7	5	4

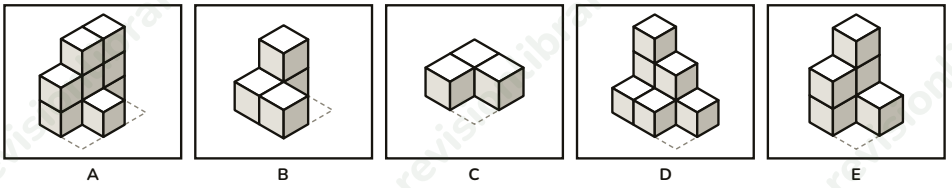
29 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many cubes would have to be removed from this solid so that only a single layer (every stack one cube high) is left?



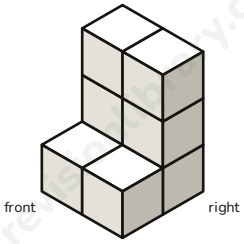
A	B	C	D	E
6	3	5	4	7

30 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 1 fewer cube than the solid shown?





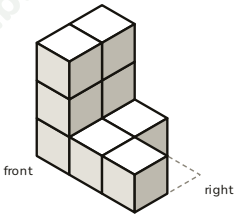
31 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many cubes would have to be removed from this solid so that only a single layer (every stack one cube high) is left?

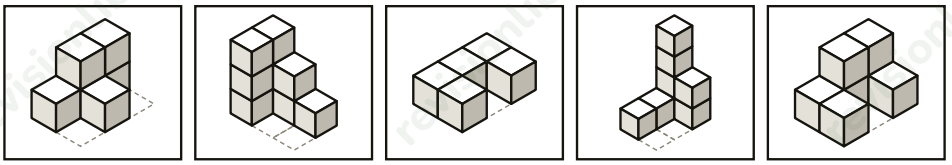


A	B	C	D	E
8	4	5	3	6

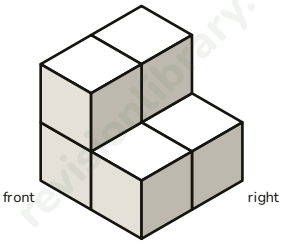
© Revision Library | revisionlibrary.co.uk

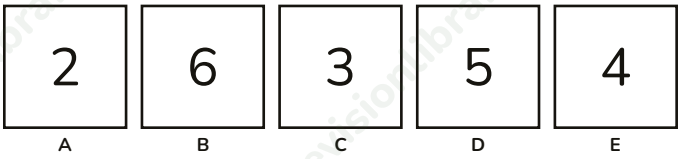
32 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 2 fewer cubes than the solid shown?



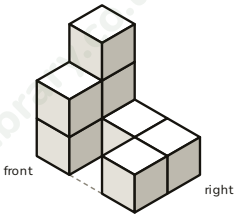


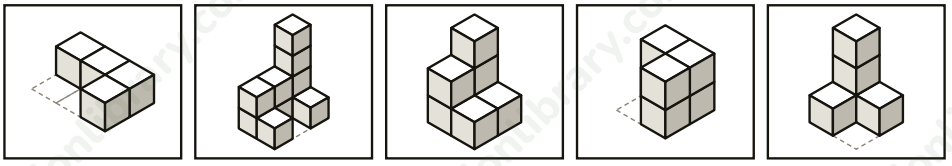
33 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. How many individual unit cubes are touching the table (the surface the solid stands on)?



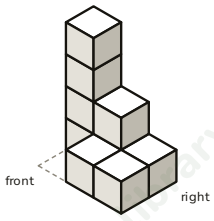


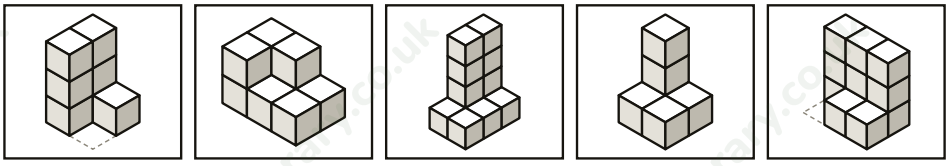
34 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from exactly 1 fewer cube than the solid shown?



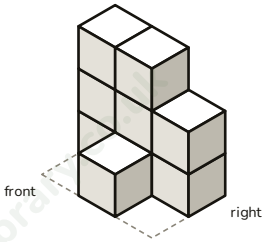


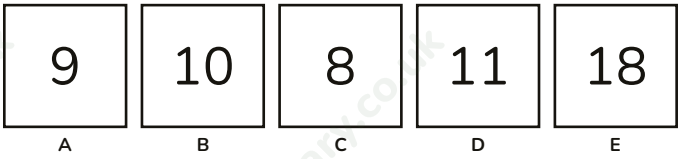
35 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?





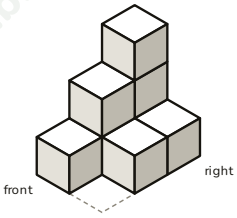
36 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. This solid stands inside an invisible box measuring 3 x 2 x 3 unit cubes (so a completely full box would need 18 cubes in total). How many extra unit cubes would need to be added to fill the box completely, with no gaps?

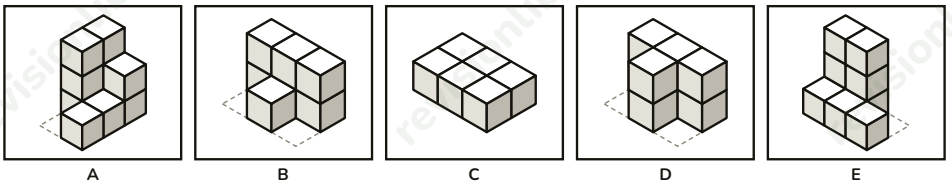




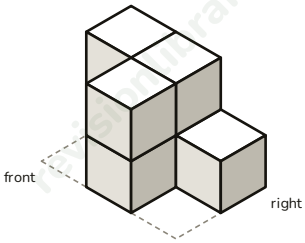
© Revision Library | revisionlibrary.co.uk

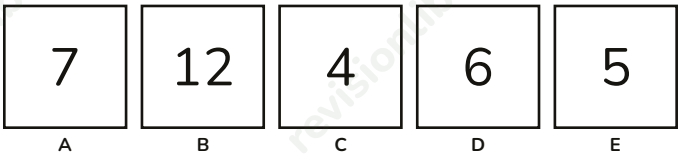
37 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?



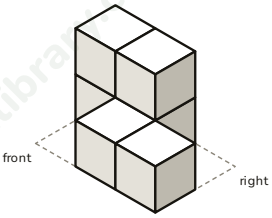


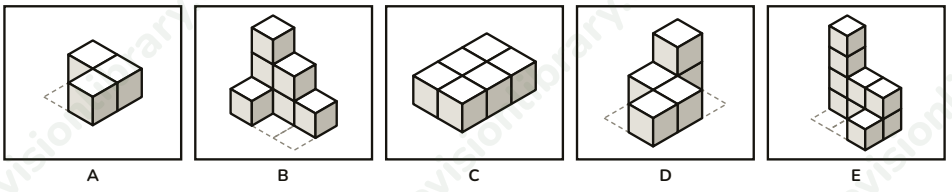
38 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. This solid stands inside an invisible box measuring 3 x 2 x 2 unit cubes (so a completely full box would need 12 cubes in total). How many extra unit cubes would need to be added to fill the box completely, with no gaps?





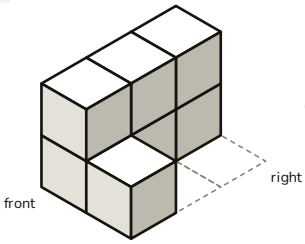
39 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. Which option, A to E, shows a solid made from the same number of cubes as the solid shown?





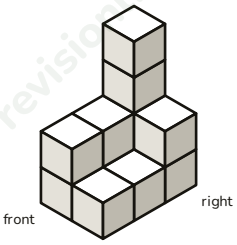
© Revision Library | revisionlibrary.co.uk

40 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. This solid stands inside an invisible box measuring 2 x 3 x 2 unit cubes (so a completely full box would need 12 cubes in total). How many extra unit cubes would need to be added to fill the box completely, with no gaps?



A	B	C	D	E
6	12	5	7	4

41 Rule: every cube sits on the table or on another cube (nothing floats), every stack of cubes can be seen from above in the picture (no stack is hidden behind another), and a cube you cannot see is always one that is needed to hold up the cubes you can. A unit cube counts as completely hidden if none of its faces (top, front-left or right) can be seen in the picture. The underside resting on the table does not count. How many unit cubes in this solid are completely hidden from view?



A	B	C	D	E
2	12	3	9	4

© Revision Library | revisionlibrary.co.uk

Mark scheme · 4.8 3D Block Counting: 1-hour Pack

Question 1

Correct option identified: the stem solid has 9 cubes so the answer needs 7; the options have 8, 4, 7, 9, 5 cubes. **B1**

Answer: C) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 2, B = 1, C = 0; Row 2: A = 2, B = 1, C = 1. A height of 0 means that grid square is bare table.

Question 2

Correct option identified (4): A cube touches the table in every grid square that is built on: 4 squares. **B1**

Answer: A) 4

Question 3

Correct option identified: the stem solid has 8 cubes so the answer needs 6; the options have 8, 6, 5, 3, 4 cubes. **B1**

Answer: B) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 0; Row 2: A = 2, B = 0; Row 3: A = 2, B = 1. A height of 0 means that grid square is bare table.

Question 4

Correct option identified (4): A cube touches the table in every grid square that is built on: 4 squares. **B1**

Answer: E) 4

Question 5

Correct option identified: the stem solid has 9 cubes so the answer needs 9; the options have 12, 7, 11, 9, 8 cubes. **B1**

Answer: D) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 1, C = 0; Row 2: A = 4, B = 2, C = 1. A height of 0 means that grid square is bare table.

Question 6

Correct option identified: the stem solid has 9 cubes so the answer needs 9; the options have 8, 10, 11, 9, 12 cubes. **B1**

Answer: D) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 1; Row 2: A = 1, B = 0; Row 3: A = 4, B = 2. A height of 0 means that grid square is bare table.

Question 7

Correct option identified (4): A cube touches the table in every grid square that is built on: 4 squares. **B1**

Answer: D) 4

Question 8

Correct option identified (7): Count each stack: the heights add up to 7, including the cubes you cannot see. **B1**

Answer: C) 7

Question 9

Correct option identified: the stem solid has 9 cubes so the answer needs 9; the options have 10, 8, 7, 11, 9 cubes. **B1**

Answer: E) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 0, B = 3; Row 2: A = 3, B = 3. A height of 0 means that grid square is bare table.

Question 10

Correct option identified (4): A cube touches the table in every grid square that is built on: 4 squares. **B1**

Answer: B) 4

Question 11

Correct option identified (4): Each of the 5 stacks keeps 1 cube: 9 - 5 = 4 to remove. **B1**

Answer: D) 4

Question 12

Correct option identified: the stem solid has 9 cubes so the answer needs 10; the options have 12, 9, 10, 8, 11 cubes. **B1**

Answer: C) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 0, B = 2, C = 0; Row 2: A = 4, B = 2, C = 2. A height of 0 means that grid square is bare table.

Question 13

Correct option identified (3): Each of the 6 stacks keeps 1 cube: 9 - 6 = 3 to remove. **B1**

Answer: A) 3

Question 14

Correct option identified: the stem solid has 6 cubes so the answer needs 8; the options have 6, 11, 5, 10, 8 cubes. **B1**

Answer: E) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 0; Row 2: A = 1, B = 0; Row 3: A = 4, B = 2. A height of 0 means that grid square is bare table.

Question 15

Correct option identified (4): A cube touches the table in every grid square that is built on: 4 squares. **B1**

Answer: E) 4

Question 16

Correct option identified: the stem solid has 12 cubes so the answer needs 9; the options have 11, 9, 7, 8, 10 cubes. **B1**

Answer: B) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 0, B = 1, C = 1; Row 2: A = 4, B = 2, C = 1. A height of 0 means that grid square is bare table.

© Revision Library | revisionlibrary.co.uk

Question 17

Correct option identified: the stem solid has 6 cubes so the answer needs 6; the options have 3, 7, 8, 4, 6 cubes. **B1**

Answer: E) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 0; Row 2: A = 1, B = 1; Row 3: A = 2, B = 1. A height of 0 means that grid square is bare table.

Question 18

Correct option identified (2): The full box needs 6 cubes and the solid has 4, so 6 - 4 = 2. **B1**

Answer: A) 2

Question 19

Correct option identified: the stem solid has 9 cubes so the answer needs 8; the options have 6, 10, 8, 11, 5 cubes. **B1**

Answer: C) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 0; Row 2: A = 1, B = 1; Row 3: A = 3, B = 2. A height of 0 means that grid square is bare table.

Question 20

Correct option identified: the stem solid has 7 cubes so the answer needs 8; the options have 6, 10, 7, 8, 5 cubes. **B1**

Answer: D) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 1; Row 2: A = 1, B = 1; Row 3: A = 4, B = 0. A height of 0 means that grid square is bare table.

Question 21

Correct option identified (5): A cube touches the table in every grid square that is built on: 5 squares. **B1**

Answer: D) 5

Question 22

Correct option identified: the stem solid has 6 cubes so the answer needs 8; the options have 8, 11, 5, 10, 6 cubes. **B1**

Answer: A) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 2, B = 1, C = 0; Row 2: A = 3, B = 1, C = 1. A height of 0 means that grid square is bare table.

Question 23

Correct option identified: the stem solid has 9 cubes so the answer needs 9; the options have 6, 12, 11, 8, 9 cubes. **B1**

Answer: E) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 0; Row 2: A = 2, B = 2; Row 3: A = 4, B = 0. A height of 0 means that grid square is bare table.

Question 24

Correct option identified (5): Count each stack: the heights add up to 5, including the cubes you cannot see. **B1**

Answer: B) 5

Question 25

Correct option identified: the stem solid has 11 cubes so the answer needs 9; the options have 8, 11, 7, 9, 10 cubes. **B1**

Answer: D) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 1; Row 2: A = 1, B = 1; Row 3: A = 4, B = 1. A height of 0 means that grid square is bare table.

Question 26

Correct option identified (9): The full box needs 18 cubes and the solid has 9, so 18 - 9 = 9. **B1**

Answer: C) 9

Question 27

Correct option identified: the stem solid has 7 cubes so the answer needs 7; the options have 7, 9, 10, 4, 5 cubes. **B1**

Answer: A) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 0, B = 2, C = 1; Row 2: A = 2, B = 2, C = 0. A height of 0 means that grid square is bare table.

Question 28

Correct option identified (5): A cube touches the table in every grid square that is built on: 5 squares. **B1**

Answer: D) 5

Question 29

Correct option identified (4): Each of the 3 stacks keeps 1 cube: 7 - 3 = 4 to remove. **B1**

Answer: D) 4

Question 30

Correct option identified: the stem solid has 7 cubes so the answer needs 6; the options have 9, 4, 3, 8, 6 cubes. **B1**

Answer: E) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 2, B = 0; Row 2: A = 3, B = 1. A height of 0 means that grid square is bare table.

Question 31

Correct option identified (4): Each of the 4 stacks keeps 1 cube: 8 - 4 = 4 to remove. **B1**

Answer: B) 4

Question 32

Correct option identified: the stem solid has 9 cubes so the answer needs 7; the options have 6, 9, 5, 8, 7 cubes. **B1**

Answer: E) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 1; Row 2: A = 2, B = 0; Row 3: A = 2, B = 1. A height of 0 means that grid square is bare table.

Question 33

Correct option identified (4): A cube touches the table in every grid square that is built on: 4 squares. **B1**

Answer: E) 4

© Revision Library | revisionlibrary.co.uk

Question 34

Correct option identified: the stem solid has 8 cubes so the answer needs 7; the options have 4, 10, 7, 6, 5 cubes. **B1**

Answer: C) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 2, B = 1; Row 2: A = 3, B = 1. A height of 0 means that grid square is bare table.

Question 35

Correct option identified: the stem solid has 9 cubes so the answer needs 9; the options have 7, 9, 12, 6, 11 cubes. **B1**

Answer: B) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 2, B = 1, C = 1; Row 2: A = 2, B = 2, C = 1. A height of 0 means that grid square is bare table.

Question 36

Correct option identified (9): The full box needs 18 cubes and the solid has 9, so 18 - 9 = 9. **B1**

Answer: A) 9

Question 37

Correct option identified: the stem solid has 8 cubes so the answer needs 8; the options have 10, 7, 6, 8, 9 cubes. **B1**

Answer: D) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 3 columns (A, B, C) by 2 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 0, B = 2, C = 0; Row 2: A = 2, B = 2, C = 2. A height of 0 means that grid square is bare table.

Question 38

Correct option identified (5): The full box needs 12 cubes and the solid has 7, so 12 - 7 = 5. **B1**

Answer: E) 5

Question 39

Correct option identified: the stem solid has 6 cubes so the answer needs 6; the options have 3, 7, 6, 5, 9 cubes. **B1**

Answer: C) a solid built from unit cubes standing on a flat table, isometric view from the front-right-top. Base grid: 2 columns (A, B) by 3 rows (row 1 nearest the viewer). Stack heights - Row 1: A = 1, B = 1; Row 2: A = 1, B = 1; Row 3: A = 1, B = 1. A height of 0 means that grid square is bare table.

Question 40

Correct option identified (5): The full box needs 12 cubes and the solid has 7, so 12 - 7 = 5. **B1**

Answer: C) 5

Question 41

Correct option identified (3): 3 of the 12 cubes have no face showing. **B1**

Answer: C) 3

© Revision Library | revisionlibrary.co.uk