Test 10

You have **10 minutes** to do this test. Circle the letter for each correct answer.

A square is folded and then a hole is punched, as shown on the left. Work out which option shows the square when unfolded.

1.

a b c d e

2.

a b c d e

3.

a b c d e

4.

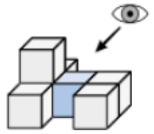
a b c d e

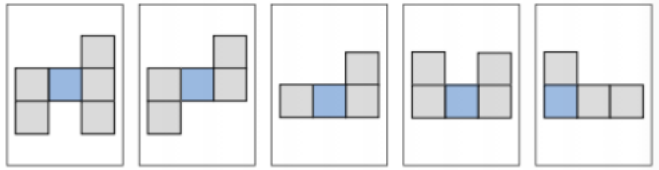
5.

a b c d e

Work out which option is a 2D view from the **back** of the 3D figure shown.

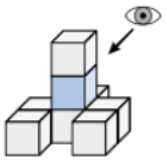
6.

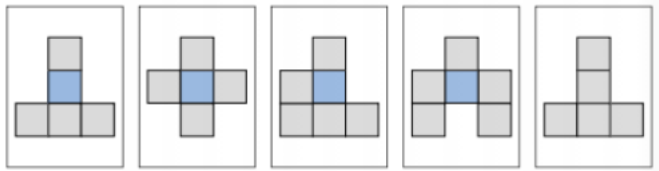




a b c d e

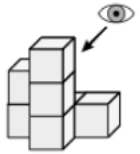
7.

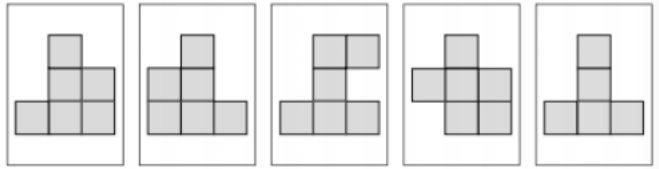




a b c d e

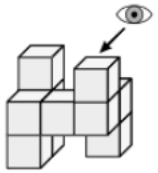
8.

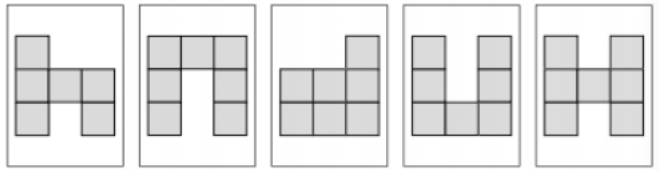




a b c d e

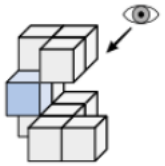
9.

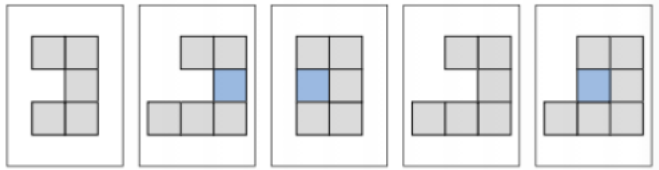




a b c d e

10.

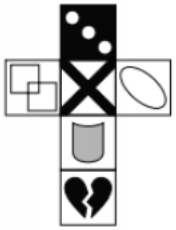




a b c d e

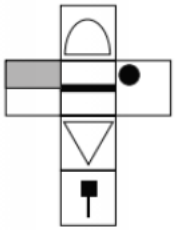
Work out which of the five cubes can be made from the net.

11.



a b c d e

12.

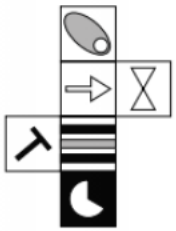


a b c d e

13.

a b c d e

14.



a b c d e

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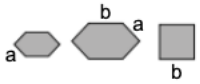
Test 11

You have **10 minutes** to do this test. Circle the letter for each correct answer.

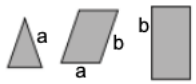
Work out which option shows how the three shapes will look when they are joined by matching the sides with the same letter.

1.



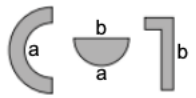
a b c d e

2.



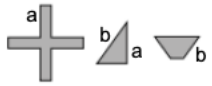
a b c d e

3.



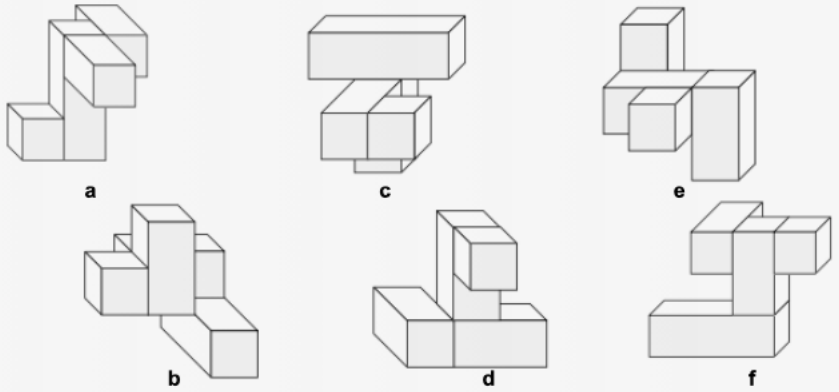
a b c d e

4.

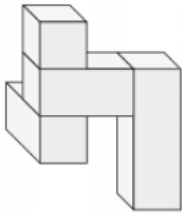


a b c d e

Work out which 3D figure in the grey box has been rotated to make the new 3D figure.

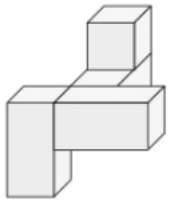


5.



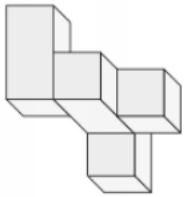
a d
b e
c f

6.



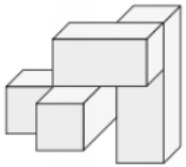
a d
b e
c f

7.



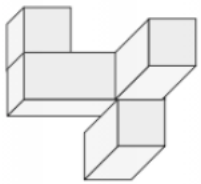
a d
b e
c f

8.



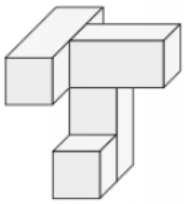
a d
b e
c f

9.



a d
b e
c f

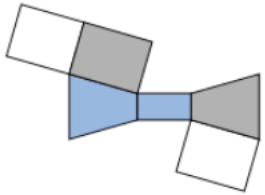
10.

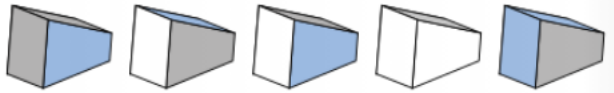


a d
b e
c f

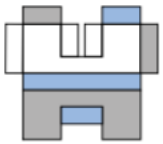
Work out which of the 3D shapes can be made from the net.

11.

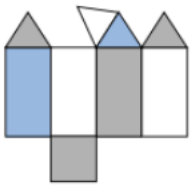




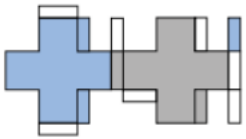
12.



13.



14.



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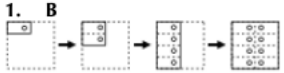
Test 10 — pages 39-41

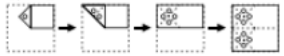
1. B



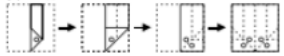
2. A

3. C

4. D



5. E



6. C
There are four blocks visible from the back, which rules out options A, B and D. There is a blue block visible in the centre of the bottom row, which rules out option E.

7. A
There are five blocks visible from the back, which rules out options C and D. There are three blocks visible in the bottom row, which rules out option B. There is a blue block visible, which rules out option E.

8. A
There are six blocks visible from the back, which rules out option E. There are two blocks visible on the right, which rules out option B. There are two blocks visible in the middle row, which rules out options C and D.

9. E
There are seven blocks visible from the back, which rules out option A. There are two blocks visible in the top row, which rules out options B and C. There are two blocks visible in the bottom row, which rules out option D.

10. D
There are six blocks visible from the back, which rules out options A and E. The blue block is not visible from the back, which rules out options B and C.

11. D
Options A and C are ruled out because the broken heart and cross must be on opposite sides. Option B is ruled out because there is no single white dot on the net. Option E is ruled out because the oval and overlapping squares must be on opposite sides.

12. C
Option A is ruled out because if the square arrow is on the front and the triangle is on the top, the black dot should be on the right. Option B is ruled out because the triangle and half-oval must be on opposite sides. Option D is ruled out because the black stripe and the square arrow must be on opposite sides. Option E is ruled out because if the black stripe is on the top and the grey rectangle is on the front, the triangle should be on the right.

13. A
Option B is ruled out because the S has been rotated. Option C is ruled out because the octagon and the diagonal stripe must be on opposite sides. Option D is ruled out because the flower and the hexagon must be on opposite sides. Option E is ruled out because if the S is on the front and the diagonal stripe is on the top, then the flower should be on the right.

14. B
Options A and E are ruled out because the arrow has been rotated. Option C is ruled out because the part-circle and the arrow must be on opposite sides. Option D is ruled out because if the two triangles are on the front and the arrow is on the right, the grey and black stripes should be on the top.

Test 11 — pages 42-44

1. B
Option A is ruled out because the larger hexagon should be connected to both of the other shapes. Options C, D and E are ruled out because the smaller hexagon is connected to the wrong side of the larger hexagon.

2. C
Option A is ruled out because the rectangle is connected to the wrong side of the parallelogram. Option B is ruled out because the parallelogram should be connected to both of the other shapes. Option D is ruled out because the triangle is connected to the wrong side of the parallelogram. Option E is ruled out because the parallelogram is connected to the wrong side of the triangle.

3. D
Options A and B are ruled out because the semicircle should be connected to both of the other shapes. Options C and E are ruled out because the semicircle is connected to the wrong side of the L-shape.

4. A
Option B is ruled out because the wrong side of the triangle is connected to the cross. Option C is ruled out because the wrong side of the trapezium is connected to the triangle. Option D is ruled out because the triangle is connected to the wrong side of the cross. Option E is ruled out because the trapezium is connected to the wrong side of the triangle.

5. F
Shape F has been rotated 90 degrees anticlockwise in the plane of the page.

6. D
Shape D has been rotated 90 degrees away from you, top-to-bottom.

7. E
Shape E has been rotated 90 degrees left-to-right.

8. B
Shape B has been rotated 90 degrees towards you, top-to-bottom.

9. A
Shape A has been rotated 90 degrees clockwise in the plane of the page.

10. C
Shape C has been rotated 90 degrees towards you, top-to-bottom. It has then been rotated 90 degrees right-to-left.

11. C
Option A is ruled out because there is only one grey rectangular face on the net. Option B is ruled out because the top face should be white. Option D is ruled out because there isn't a white trapezium-shaped face on the net. Option E is ruled out because there is only one blue rectangular face on the net.

12. C
Options A and E are ruled out because the top rectangular face should be white. Option B is ruled out because the front face should be white. Option D is ruled out because only two of the small rectangular faces on the net are blue.

13. A
Option B is ruled out because the triangular face connected to the blue rectangular face should be grey. Options C and E are ruled out because the triangular face connected to the white rectangular face should be white. Option D is ruled out because the blue and grey rectangular faces aren't next to each other on the net.

14. E
Option A is ruled out because there are no blue rectangular faces next to each other on the net. Option B is ruled out because the top rectangular face should be white. Option C is ruled out because there are only two grey rectangular faces on the net. Option D is ruled out because are no grey rectangular faces next to each other on the net.