Non-Verbal Reasoning Mock Test 11 Answers

Q#	Answer	Explanation
1	B	The triangle looks the same in an upright mirror, so follow the dot. It sits low on the left; the mirror swaps left and right, so it comes back low on the **right**, with the triangle still pointing up: B. A also has the dot on the right, but its triangle points down, which is a half turn. C points down with the dot on the left, D has not moved and only has a white dot, and E lies on its side.
2	D	The trapezium has its long side along the bottom and its upright side on the right. A mirror lying flat underneath turns it upside down but keeps left and right as they were, so the long side goes to the **top** and the upright side stays on the **right**: D. B is upside down too, but its upright side is on the left, which is a half turn. A has only swapped left and right, C lies on its side, and E has not moved and is only grey.
3	A	The h has its tall stem on the left and its short leg hanging down on the right. A mirror lying flat underneath turns it upside down but keeps left and right as they were, so the stem stays on the **left** and the short leg now points **up** on the right: A. B also has its leg pointing up, but its stem is on the right, which is a half turn. C is a back-to-front h, and D and E lie on their sides.
4	E	The square looks the same in this mirror, so follow the black triangle. The mirror rises from the bottom left to the top right. The triangle sits by the **left** side, a little above the middle, so it comes back by the **bottom** edge, a little right of the middle: E. A has it by the bottom edge but left of the middle, which is a quarter turn. B and C have it by the top edge, and D has only moved it across to the right-hand side.
5	C	The heptagon looks the same in an upright mirror, so follow the arrow. It sits low on the left and points up to the right; the mirror sends it across to sit low on the **right**, pointing up to the **left**: C. A and B have turned the heptagon upside down, with its point at the top, and D and E lay it on its side.

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6	B	A mirror lying flat underneath turns the tower upside down: the white circle goes to the top, the grey square stays in the middle, a little to the right, and the black triangle goes to the bottom, still on the left. The triangle is **flipped** as well, so its square corner moves from the bottom left to the **top left**: B. A is the trap - every piece is in the right place, but the triangle has only been moved down, not flipped, so its square corner is still at the bottom. C is a half turn, with everything on the wrong side, D is an upright mirror, and E lies on its side.
7	D	Follow the top bar of the 7. The mirror falls from the top left to the bottom right, so it stands the bar up along the **left**, and the right end of the bar, where the long stroke begins, goes to the **bottom**. The stroke now runs out to the right from there: D. B is a quarter turn anticlockwise, which also stands the bar up on the left but has the stroke leaving from the top. A and C stand the bar up on the right, and E is a back-to-front 7.
8	C	The mirror rises from the bottom left to the top right, so the rectangle is stood on its end, and each mark's distances across and up swap over. The black dot, well left of the middle and a little down, comes back well **below** the middle and a little **left**; the grey star, well right and a little up, comes back well above and a little right: C. A also has the dot low and the star high, but each on the wrong side of the middle, which is a quarter turn. B and D have the dot at the top, and E still lies flat.
9	C	The shadings and the marks inside all change, but four of the outside shapes are **circles**. C is a semicircle - only half a circle.
10	D	Every picture has two parts. In four of them one part is **light grey** and the other **dark grey** - inside or outside, left or right. D has a light grey pentagon, but its star is white, not dark grey.
11	A	Each picture has three parts. In four of them **two** parts have curved edges - circles, dots and semicircles - and **one** is made of straight lines. A has only one curved part, its dot; the hexagon and the star are both straight-sided.

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12	E	Each picture has three parts, and in four of them exactly **two** are shaded - black, grey, light grey, dotted and striped all count - while one is left white. In E all three are shaded: the pentagon is light grey and both of its marks are black.
13	B	Four of the shapes are the same shape turned different ways: a **trapezium**, with one long side, one short side parallel to it, and two sloping sides that lean in towards each other. B is a parallelogram: its two sloping sides lean the **same** way.
14	D	Add up the sides in each picture. A pentagon and a hexagon make 5 + 6 = 11, a square and a heptagon make 4 + 7 = 11, a hexagon and a pentagon side by side make 11 again, and a heptagon and a trapezium make 7 + 4 = 11. D, a heptagon holding a pentagon, makes 7 + 5 = 12.
15	C	Each picture has three parts. In four of them they are a **triangle**, a **four-sided** shape and a **pentagon** - any kind of triangle, any four-sided shape, inside one another or in a row. C has a hexagon where the pentagon should be.
16	E	Count the parts with a curved edge. Four pictures have exactly **one** - a dot, a circle or a semicircle - and three straight-sided parts; a star and a cross count as straight-sided. E has two curved parts, a dot and a circle.
17	C	The piece is a block with a short post standing up on its left. A quarter turn anticlockwise lays it on its side: the post now sticks out to the **left**, from the **lower** half of the block: C. E also sticks out to the left, but from the upper half, which is a mirror image. A and B still stand up, flipped over, and D sticks out to the right.
18	A	A quarter turn anticlockwise carries the arrow from the bottom of the square round to the **right-hand** side, and turns it from pointing right to pointing **up**: A. E is on the right-hand side too but points down, which is a mirror image. B points left, C sits at the top and D is on the left.

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19	E	The piece is a bar of three squares on top, stepped along from a bar of two underneath that sticks out to the left. A quarter turn clockwise stands it up: the long bar becomes an upright on the **right**, and the short bar an upright on the left that sticks up **above** it: E. C also has the long upright on the right, but its short one hangs down below it, and D has them the other way round; both are mirror images. A and B still lie flat, flipped over.
20	B	A half turn stands the trapezium on its short side, with its long side at the top, **and** carries the shading from the left half over to the **right**: B. C is upside down too but still shaded on the left, which is a flip. A is the right way up with the shading on the right, and D and E lie on their sides.
21	D	Three eighths of a turn is hard to picture, so turn each option back in your head until the long bar lies flat with the bump on top. At the start the bump sits on the **second square from the left**. Only D comes back like that; the four mirror images all come back with the bump on the second square from the right.
22	A	Five eighths of a turn is hard to picture, so turn each option back until the semicircle sits on its flat edge with its curve at the top. At the start the dot is near the flat edge on the **left**. Only A comes back like that; the four mirror images come back with the dot on the right.
23	E	The hexagon looks the same after a third of a turn, so everything rests on the arrow. At the start it sits up and to the left of the middle and points straight up - turned a little **clockwise** from pointing straight out, away from the middle. A turn keeps that, and a third of a turn clockwise carries the arrow round to the upper right, pointing down and to the right: E. In A, B, C and D the arrow is turned a little anticlockwise from pointing straight out, because they are mirror images.
24	C	Turn each option back until its long sides lie flat. At the start the parallelogram leans over to the **right**, with the dot left of the middle and a little up. Only C comes back like that. A, B, D and E are mirror images, and every one of them comes back leaning to the left.

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25	D	Every picture in the box is made of exactly **two circles** - one inside the other or side by side, any size and any shading. D, a striped circle beside a white one, is the same. A has a square instead of a second circle, B is only one circle, C has a semicircle, and E has three circles.
26	E	Every shape in the box is an **arrow** - a straight shaft with a point on the end - pointing a different way each time. E is an arrow too. A is an arrowhead, which is a point with no shaft, and B, C and D are a cross, a triangle and a star.
27	A	Every picture in the box has two parts, and exactly **one** of them is shaded over half - any half, and it may be the outside shape or the one inside. A, a pentagon shaded on its right half holding a white star, is the same. B is shaded all over, not half; C has two half-shaded shapes; D is only one shape; and E has three parts.
28	B	Every picture in the box has exactly two parts, and **both** are dotted - side by side or one inside the other. B, a dotted trapezium holding a dotted circle, is the same. A is striped, not dotted; C has a grey triangle; D is only one shape; and E has three.
29	C	Every picture in the box is a **triangle** and a **four-sided** shape - any kind of triangle and any four-sided shape, one inside the other or side by side. C, a trapezium beside a triangle, is the same. A has a pentagon instead of a four-sided shape, B a circle instead of a triangle, D two triangles, and E has a dot as well.
30	E	In every picture in the box there is a big shape and a small one exactly **half** as wide - inside it or beside it - and the big shapes are all the same size. E, a pentagon holding a square half as wide, is the same. In A the circle is less than half the size of its square, and in D it is only a quarter the size of its hexagon; in B the star beside the circle is much more than half; and in C the square is smaller than the big shapes in the box, so the circle beside it is more than half its size.

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31	B	Every picture in the box has four parts, and exactly **two** of them are shaded - black, grey, light grey, dotted or striped - while two are left white. B, a grey hexagon, a white kite, a black circle and a white triangle, is the same. A has three shaded parts, C only three parts altogether, D none shaded, and E only one.
32	A	Add up the sides in each picture. A hexagon and a heptagon make 6 + 7 = 13, a pentagon and two squares make 5 + 4 + 4 = 13, and a kite, a triangle and a hexagon make 4 + 3 + 6 = 13. A, a square holding a triangle and a hexagon, makes 4 + 3 + 6 = 13 as well. B comes to twelve, C to fourteen, D to twelve, and E to ten.
33	B	Each h is the one before turned a quarter turn **clockwise**. After four quarter turns it has gone right round, so the fifth stands upright again, just like the first: B. A is upside down, like the third, and C lies on its side, like the second; D is a mirror image of the fourth, and E is the fourth turned black.
34	D	The hexagon itself never moves; only its shading does, going a quarter of the way round **anticlockwise** each time - the left half, the bottom half, the right half, the top half. The next step brings it back to the **left** half: D. A goes back to the right half, B jumps to the bottom half, C is shaded all over, and E is still shaded on top but has shrunk.
35	A	The circle stays still; it is the **stripes** inside it that turn, an eighth of a turn anticlockwise each time: flat, sloping up to the right, upright, sloping down to the right. One more eighth brings them back to **flat**: A. B slopes up to the right, like the second circle, and C is upright, like the third; D is dotted, and E still slopes down to the right and has shrunk.
36	E	Two things happen at every step: the trapezium is flipped left to right, so its upright side swaps between the right and the left, **and** it swaps between black and white. The fourth is white with its upright side on the left, so the fifth is **black** with its upright side on the **right**, like the first and third: E. A is flipped but still white, B is black but not flipped, C is white and upside down, and D is grey.

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37	C	Two things happen at every step: the white circle **drops** one step down the square, **and** the square gets one shade darker - white, light grey, grey, dark grey. So the fifth square is **black**, with the circle at the bottom: C. A has the circle at the bottom but the square still dark grey, B is black but the circle has not dropped, D is black but the circle has gone back up to the middle, and E has the circle at the bottom but the square has gone back to grey.
38	A	Two things happen at every step: the black circle **grows** and the white square **shrinks**, so by the third picture they are about the same size, and after that the circle is the bigger. The fifth has the biggest circle yet beside the smallest square: A. B has grown the square as well as the circle, C has shrunk the square but not grown the circle, D has gone back a step, and E has swapped the colours.
39	D	Two things happen at every step: the triangle turns a quarter turn **clockwise**, so its square corner goes from the bottom left to the top left, the top right and the bottom right, **and** its filling goes round a cycle of three - white, dotted, black, then white again. So the fifth has its square corner back at the bottom left and is **dotted**: D. A is turned the right way but white, B is dotted but not turned, C is dotted but turned the wrong way, and E is turned the right way but black.
40	E	Two things happen at every step: the black dot moves one corner round the square **clockwise** - top left, top right, bottom right, bottom left - **and** it grows. So the fifth has the biggest dot yet, back in the **top left** corner: E. A has moved the dot on but not grown it, B has grown it but left it in the bottom left, C has moved it back to the bottom right, and D has jumped two corners, to the top right.
41	C	The arrow takes J and the crosses take K, so the top letter is the shape. The grey shapes take V and the striped one takes W, so the bottom letter is the filling. A striped arrow is JW.

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42	A	The large heptagons take D and the small one takes E, so the top letter is the size. The black shapes take R and the dotted one takes S, so the bottom letter is the filling. A small dotted heptagon is ES.
43	D	The top letter counts the small shapes **inside**, whatever they are: one takes L, two take M and three take N. The bottom letter is the shading of the big shape: white takes V and light grey takes W. The test shape is a light grey circle holding three small shapes, so NW.
44	B	The top letter is the big shape: a semicircle takes P, a heptagon Q and a square R. The bottom letter says whether anything is **dashed** - the outside shape or the one inside, it does not matter which: nothing dashed takes X and one dashed part takes Y. The test shape is a semicircle holding a dashed circle, so PY.
45	E	The top letter is the shading of the circle: white takes D, grey E and black F. The bottom letter is the white shape inside it: a star takes S and a cross takes T, however it is turned. The test shape is a grey circle holding a cross, so ET.
46	C	Every kind of shading appears - grey, dots, stripes, black - but the top letter counts only the **black** shapes: none takes D, one takes E and two take F. The bottom letter is the pair of shapes: a circle and a square take Y, a triangle and a kite take Z. The test shape is a grey triangle beside a black kite - one black shape - so EZ.
47	A	Some shapes sit inside others and some sit side by side, but that is not coded: the top letter counts how many shapes there are **altogether**. Two take J and three take K. The bottom letter says whether any of them is black: none takes R and one takes S - grey and light grey do not count. The test shape is a pentagon holding a triangle and a dot, which is three shapes, and the triangle is black, so KS.
48	D	Count the shapes that are shaded over exactly **half** - any half, and it may be the big shape or a small one: none takes P, one takes Q and two take R. The bottom letter is the big shape outside: a circle takes V, a pentagon W and a hexagon X. The test shape is a hexagon, and only its small circle is half shaded, so QX.

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