

Non-Verbal Reasoning Mock Test 7 Answers

Q#	Answer	Explanation
1	D	A mirror lying flat across the page swaps top and bottom and leaves left and right alone. The right angle at the bottom left goes to the top left, and the long side that lay along the bottom now runs along the top. A has the right angle at the bottom right, which is what an upright mirror would do; B is turned upside down, putting the right angle at the top right; C is a quarter turn; and E has not been reflected at all, only shaded grey.
2	B	An upright mirror swaps left and right, so a shape leaning to the right comes back leaning to the left, still lying flat and still black. B does that. A has been turned upside down, which leaves a parallelogram leaning exactly as it did; C and E stand it on its end; and D has not moved at all and is only shaded grey.
3	C	The square looks the same in the mirror, so follow the two marks. An upright mirror sends each one straight across to the other side at the same height and turns it over as it goes: the black triangle moves from the lower left to the lower right with its right angle now on the right , and the grey dot moves from the upper right to the upper left. D is the trap - both marks are in the right places, but the triangle has slid across without being flipped, so its right angle is still on its left. A is a half turn, B a mirror lying flat, and E a slanting mirror.
4	A	This pentagon has a flat top and a point at the bottom, so it looks the same in an upright mirror and only the shading moves. It fills the lower right half, and the mirror swaps left and right, so it must fill the lower left half with the point still at the bottom: A. C and D point upwards, so they are a half turn and a mirror lying flat; B and E lie on their sides, which is a quarter turn.

5	E	The mirror rises from the bottom left to the top right. It swaps the across and up directions over, so a triangle pointing up comes back pointing to the right , and the dot near its lower left corner comes back near its lower left too, just below the middle. B points the right way but carries the dot to the top, which is a quarter turn clockwise. A and C point to the left, and D points down.
6	A	The mirror stands upright between the two shapes, so each one crosses to the other side and is turned over. The black triangle goes to the right with its right angle now on the right, and the grey semicircle goes to the left with its curve now facing right. A does both. B swaps the shapes over without flipping them, C flips each shape where it stands without swapping them, D is a half turn, which leaves the triangle upside down, and E is a mirror lying flat.
7	D	A slanting mirror stands the rectangle on its end, and its stripes, which ran across, now run up and down. That is true of A, B, C and D, so the dot decides it. The mirror swaps the across and up distances over: a dot a long way left and a little way up comes back a long way down and a little way to the right , which is D. A puts it down and to the left, B up and to the right, and C up and to the left. E is still lying flat, which is an upright mirror.
8	B	The mirror lies flat underneath, so everything swaps top for bottom and stays on its own side. The arrow drops to the lower left, and because it is turned over it now points down to the right instead of up to the right; the grey square rises to the upper right. B is that. C is the trap: the arrow has dropped to the right place but still points up, so it has been moved rather than reflected. A is an upright mirror, D is a half turn and E a slanting mirror.
9	C	All three sides of this triangle are different lengths, so turning it and flipping it can never give the same picture. C is the triangle turned a quarter turn anticlockwise, dots and all. The other four are mirror images: try to turn any of them back to the start and it comes out facing the wrong way.

10	E	A half turn takes the black triangle from the left end of the rectangle to the right end and stands it on its head, so its right angle goes from the bottom left to the top right . E is the only one that does that. In A the triangle has reached the right end but its right angle is at the bottom right, which is a flip, and the others are flipped as well.
11	A	An equilateral triangle looks exactly the same after a third of a turn, so the triangle itself cannot show the turn - only the black square can. It starts just left of the middle, and a third of a turn anticlockwise carries it round to just below and to the right of the middle, which is A. B keeps the triangle upright but mirrors the square straight across to the right, C has flipped the triangle upside down, and D and E have flipped it so that it points sideways.
12	D	The heptagon has a point at the bottom. Turning the picture a quarter turn anticlockwise swings that point round to the right , and carries the arrow round from the left to the bottom, where it now points up . D is the only one with both. E also has its point to the right, but its arrow is at the top pointing down; C has the arrow right but the point on the left. In A and B the heptagon still points down or up.
13	B	A dotted square looks the same however it is turned, so follow the black semicircle. A quarter turn clockwise carries it from the bottom left corner to the top left and turns its curved edge to face the right. B has both. D also faces right, but it is in the bottom left corner, and in the other three the curve faces up, down or to the left.
14	E	The circle tells you nothing, so read the two marks together. Turn the whole picture an eighth of a turn anticlockwise: the black dot slides round towards the left, and the grey triangle round towards the right, tilted as it goes. Only E keeps the dot and the triangle the same way round as you go round the circle; in the other four a mirror has swapped them, and the triangle is tilted the wrong way.

15	C	This is three eighths of a turn clockwise , which is hard to picture, so use a test that works for any turn: in your head, turn each option back until its longest side is at the bottom. Only C then looks exactly like the start, with its sloping side on the left and its shading in the lower left corner. The other four are mirror images, and they all end up with the sloping side on the right.
16	A	A hexagon looks the same after a third of a turn, so the grey shape gives nothing away, and the two stars are the same shape - only their colours tell them apart. A third of a turn anticlockwise carries the black star from the left round to the bottom and the white star from the lower right up to the top. A has them there. In the others the black and white stars have been mirrored into each other's places or into the wrong places altogether.
17	D	The shading, the size and the way each shape is turned all change, so none of those is what the four share: four of them have five sides. D is a hexagon, with six.
18	C	Count the parts that are black. Four of the pictures have exactly two black parts - two small marks in A, B and D, and two shapes side by side in E. C looks the blackest of all, but its black pentagon is only one part; the two marks inside it are white.
19	B	Every picture is made of two shapes, sometimes one inside the other and sometimes side by side. In four of them both shapes are triangles, of different kinds and turned different ways. B pairs a triangle with a kite, which has four sides.
20	E	The outside shape, its shading and the kind of mark all change, and the marks are sometimes in a row and sometimes in a triangle. What four of them share is the number: each holds three small marks. E holds four dots.
21	A	Count the parts drawn with dashed lines. B, C, D and E each have exactly two - even though D and E have three parts, one of them is solid. A has only one dashed part: the pentagon is dashed but the star inside it is drawn with a solid line.

22	B	Every picture mixes curved parts with straight-sided ones, and in four of them exactly one part is made of straight lines: the square in A, the triangle in C, the star in D and the kite in E. B has two - the hexagon and the star. A star has no curves at all, which is what makes this one easy to miss.
23	E	Each picture is a circle and a square: one inside the other, either way round, or side by side. A square stood on its corner, as in B and D, is still a square - turning a shape does not change what it is. E is the odd one out because its outside shape is a rectangle, with two long sides and two short ones.
24	C	Add up the straight sides in each picture; a circle or a dot has none. Two triangles make six (A), a hexagon with a dot makes six (B and D), and a circle holding two triangles makes six (E). C is a square holding a triangle, which makes seven.
25	B	Along the top row the white circle is filled with stripes, and nothing else about it changes. The kite must be striped too, still standing upright and the same size. A is dotted and C is grey, which are different shadings; D has been turned on its side and E made smaller, and both are still white.
26	D	Along the top row the triangle is turned a quarter turn anticlockwise: its long bottom side now stands up on the right. The trapezium must be turned a quarter turn the same way, so its long bottom side stands up on the right and its short upright side lies along the top. A turns it the other way, B turns it upside down, C flips it over, and E has only made it bigger.
27	A	Along the top row the two shapes swap colours: the black hexagon turns white and the white dot inside it turns black. So the white pentagon must turn black and its black star white. B has made the star white but left the pentagon white too, C has blackened the pentagon so that the star is lost in it, D has only turned the pentagon upside down, and E shades the pentagon grey instead of black.

28	E	Along the top row the arrowhead is turned an eighth of a turn anticlockwise, so that it points down and to the right instead of straight down. The triangle must be turned an eighth of a turn the same way. A turns it a quarter turn, B an eighth the other way (clockwise), C turns it upside down, and D flips it over left to right.
29	C	Along the top row only the outside shape changes: the grey pentagon becomes a grey circle of the same size, and the black triangle inside it stays exactly as it was. So the striped square must become a striped circle with the black star still inside. A has turned the star into a circle as well, B has made the outside a hexagon, D has lost the star, and E has only changed the shading to grey.
30	D	Two things happen along the top row: the picture is flipped top to bottom, as if in a mirror lying flat, and the black mark turns white. The triangle's right angle goes from the bottom left to the top left, and the dot goes with it. So the trapezium must be flipped top to bottom, its little square moving down to the lower left and turning white. A is flipped but the square is still black, B is white but not flipped, C is turned upside down, which carries the square to the right, and E is flipped left to right instead.
31	B	Two things happen along the top row: the black mark jumps from the top left corner to the bottom right, and the shape around it is shaded light grey. So the triangle must jump to the bottom right, still pointing up, and the circle must turn light grey. A moves the triangle but leaves the circle white. C is the trap: turning the whole picture upside down also takes the triangle to the bottom right, but it then points down. D has not moved the triangle, and E moves it only across the top.

32	E	Along the top row the whole picture is turned a quarter turn anticlockwise, so the kite lies on its side and the dot, which was above the middle, goes round to the left of it; and the dot grows. So the triangle must be turned a quarter turn anticlockwise - pointing to the left - with its square moved round to the right of the middle and grown. A is turned but the square has not grown, B has grown but is not turned, C is turned the wrong way, so it points right, and D is turned upside down.
33	C	The black square walks down its box on a slant, from the top left towards the bottom right, by the same step each time. C takes it one more step along the slant. A moves it back, B only moves it across, D only moves it down, and E has grown.
34	A	Each triangle is the one before turned a sixth of a full turn clockwise . A carries on by one more sixth. B turns it two sixths at once, C turns it back the other way, D is a reflection and E has only changed colour.
35	E	The black triangle goes round the corners of the square clockwise, and it turns a quarter turn clockwise as it goes, just as if the whole box were being turned. After the bottom left it returns to the top left, exactly as it started: E. A and B put it back in corners it has already left. C has the triangle flipped over in the bottom right, and D has it in the top left but flipped, so its right angle points the wrong way.
36	B	The pentagon stays the same while the black square in the middle grows by the same step each time. B is one step bigger again. A has grown two steps at once, C has shrunk back, D has lost the square, and E has turned it grey without growing it.
37	D	Two things happen at every step: the kite moves one step to the right and swaps its colour between black and white. The fourth is white, so the fifth is black and one step further right: D. A has moved but is still white, B has turned black without moving, C jumps two steps, and E moves up instead of across.

38	A	Each step turns the triangle an eighth of a turn anticlockwise and moves its shading one place round white, grey, black, and back to white. The fourth is white, so the fifth is grey and turned one more eighth: A. B is turned but still white, C is grey but not turned, D is turned a quarter turn instead of an eighth, and E is flipped over.
39	C	Two marks move at once, at right angles to each other: the star climbs up the right side of the box and the little square walks along the bottom to the right, each by the same step every time. C moves both of them one more step. A moves only the star, B only the square, D moves them both back, and E turns the whole picture upside down.
40	E	At every step the pentagon gets smaller and its outline switches between solid and dashed. The fourth is dashed, so the fifth is solid and one step smaller: E. A is the right size but still dashed, B is solid but has not shrunk, C has shrunk far too much, and D has grown back to the size of the third.
41	C	The solid triangle takes L and the dashed shapes take M, so the top letter is the outline. The triangles take S and the hexagon takes T, so the bottom letter is the shape. A hexagon with a solid outline is LT.
42	E	Every shape is a kite, so the kite is not being coded. The large kites take B and the small one takes C, so the top letter is the size. The black kites take X and the light grey one takes Y, so the bottom letter is the shading. A small light grey kite is CY.
43	D	Every outside shape is a pentagon, so look inside it. A triangle takes F and a semicircle takes G, so the top letter is the mark. The solid pentagons take J and the dashed one takes K. The test shape is a dashed pentagon holding a triangle, so FK.
44	A	The top letter is the shading of the cross: black takes P, grey takes Q and white takes R. The bottom letter is the shape around it: the circles take X and the square takes Y. The test shape is a square holding a grey cross, so QY.

45	B	Every picture is a hexagon holding black stars. The top letter counts the stars: one takes D, two take E and three take F. The bottom letter is the outline of the hexagon: solid takes M and dashed takes N. The test shape is a dashed hexagon holding three stars, so FN - a pairing that never appears on the left.
46	C	The top letter is the outside shape: the squares take R and the rectangle takes S. The third shape is a square stood on its corner, and it still takes R, which shows that turning a shape does not change its letter. The bottom letter is the dot: black takes V and white takes W. The test shape is a rectangle, turned, holding a white dot, so SW.
47	D	The top letter counts the parts made of straight lines: none takes D (a circle and two dots), one takes E and two take F - it does not matter which shapes they are. The bottom letter is the shading of the outside shape: white takes M and grey takes N. The test shape is a grey circle holding a dot and a star; only the star is straight-sided, so EN.
48	B	The shape inside moves about from picture to picture, but where it sits is never coded. The top letter is the shape itself: a triangle takes P, a square Q and a pentagon R. The bottom letter is the circle: white takes X and grey takes Y. The test shape is a grey circle holding a triangle, so PY.