

Non-Verbal Reasoning Mock Test 4 Answers

Q#	Answer	Explanation
1	C	The shape and the mark inside it change places in colour: what was black becomes white and what was white becomes black. So the hexagon must turn white and its star must turn black. A has made both parts grey, B has turned the hexagon white but left the star white as well, and D and E have only been turned or shrunk.
2	A	The triangle is turned three eighths of a full turn anticlockwise - 135 degrees, a quarter turn and half a quarter again. The trapezium is turned the same way. B turns only an eighth, C only a quarter, D is a three-quarter turn and E is a reflection, which is not a turn at all.
3	D	The pentagon gains two black dots, one on each side of it, and nothing else changes. The circle must gain the same pair. A has gained only one dot, B has gained two squares rather than two dots, C has put its two dots one above the other instead of side by side, and E has gained nothing and only shrunk.
4	B	The shape on the outside shrinks while the mark inside it stays exactly the size it was, so the mark ends up filling much more of it. A has shrunk both, so the dot is smaller too; C has shrunk the dot and left the kite alone, which is the wrong way round; D has grown everything and E has only changed the dot's colour.
5	E	The square keeps everything except the mark on its left , which it loses. The circle must lose its triangle and keep the square on the right. A has dropped the wrong one, B has thrown away the circle instead of a mark, C has gained a third mark and D has only changed a colour.
6	B	Both the shape and its shaded half are reflected in a mirror running from the top left corner down to the bottom right. That mirror swaps across and up the other way round from the one that rises, so the half shaded on the left comes back shaded at the top. A uses the rising diagonal, which sends the shading to the bottom, and C and D are turns.

7	D	The picture is turned a third of a full turn - 120 degrees - anticlockwise. A hexagon looks the same after a sixth of a turn, so the hexagon itself seems not to move and only the small black square travels, from the lower right round to the top. A goes half as far, B goes a half turn, C goes twice as far and E is a reflection.
8	C	Look carefully at what has not changed: the trapezium is standing exactly as it was, with its sloping side in the same place. Only the shading has moved, from the left half to the right. A is the trap - reflecting the shape moves the shading across but turns the shape over as well. B is a half turn, D has shaded the top instead of the right and E has shaded the whole shape grey.
9	B	A square looks the same however it is turned, so the black dot is the only thing to follow. B has it where a quarter turn anticlockwise would carry it, round from the upper left to the lower left. In the other four the dot has been mirrored across the square instead, which is a flip and not a turn.
10	D	A hexagon does not look the same after a quarter turn - it changes from flat-topped to pointed - so here both the hexagon and the little square show the turn, and they must agree. D has both right. The others are mirror images.
11	A	The circle tells you nothing, so read the two marks together. A half turn carries the triangle from the upper left to the lower right and the dot from the lower right to the upper left, keeping them the same distance apart and on the same side of one another. In the others the pair has been swapped over by a mirror.
12	E	A pentagon looks the same after a fifth of a turn, and a cross looks the same however it is turned, so everything rests on where the cross ends up. E has it a fifth of a turn on from where it started. The rest have it mirrored across the pentagon.
13	C	C is the trapezium turned an eighth of a turn, with its hatching turned by the same amount. In the other four the hatching leans the other way, which is what a flip does to it and a turn never can.

14	B	One mark is black and one is white, so which is which settles it. Turning the picture a quarter turn anticlockwise carries the black star from the upper left round to the lower left and the white dot from the lower right to the upper right. B does that; the others have reached the same corners by flipping, which puts the two marks the wrong way round.
15	D	A kite is very nearly the same shape upside down, so do not trust its outline alone - follow the dot. D has it a quarter turn round from where it began. The other four have mirrored it, which on a kite is easy to miss and is exactly what the question is testing.
16	C	A parallelogram looks the same after a half turn, so a half turn would show nothing; a quarter turn stands it the other way up and takes its hatching with it. C is that turn, with the white dot carried round. In the others the hatching leans the wrong way for a turn.
17	C	Every shape is a different shape and every one is shaded differently, so neither of those can be the answer. Four of them are drawn with a solid outline; C is drawn with a dashed one.
18	E	Four of these are shaded right across, whether in grey, in hatching, in solid black or in dots. E is shaded over exactly half of itself and left white over the other half.
19	D	Count the parts each picture is built from. Four of them have three - an outline and two black marks - even though the outline and the marks change every time. D has only two, because it holds a single dot.
20	B	The shading, the outline and the mark inside all change from one to the next, so none of those is what the four share: they are drawn inside a hexagon. B is drawn inside a pentagon, which has five sides rather than six.
21	A	Each picture is a four-sided shape holding a smaller black one, and no two use the same pair. In four of them the small black shape is a triangle with three sides. In A it is a pentagon, which has five.

22	D	Add the sides of the two shapes in each picture: six and four, five and five, four and six, three and seven - four of them come to ten. D comes to seven, because a trapezium has four sides and a triangle three.
23	E	In four of the pictures one part is black and the other is grey, sometimes one way round and sometimes the other. E is a black square holding a white dot, so it is the only one with no grey in it.
24	C	Every picture is made of two parts, so counting them settles nothing. In four of them exactly one of the two parts is curved - sometimes the shape outside, sometimes the mark inside. C is a circle holding a dot, so both of its parts are curved.
25	D	No two shapes in the box are the same triangle and no two are shaded alike, so what they share is simply having three sides. D is a triangle as well. A has four sides, B five, C four and E none at all.
26	A	The three in the box are shaded quite differently, so the shading is not it: every one of them is built from straight sides with no curve anywhere. A is a trapezium and is straight-sided too. The other four are all drawn with a curve.
27	C	The outer shape, its shading and the mark inside all change from one to the next. What every one of the three has is exactly one black part - always the little mark. C is a grey trapezium holding a black triangle. B has two black parts, and A, D and E have none.
28	B	Each picture in the box is a shape shaded over exactly half of itself, holding one black mark - and it is a different half every time, so which half it is does not matter. B is a kite shaded over its lower half holding a black triangle. C is shaded over half but holds nothing, and the rest are shaded all over.
29	D	Every picture on the page is made of two parts, and the shading changes throughout, so neither counts. In the box both parts are curved every time. D is a semicircle holding a semicircle, so both of its parts are curved too; the others all have a straight-sided part.

30	C	Add the sides of the two shapes together: six and five, three and eight, four and seven - every one in the box comes to eleven. C is a kite holding a heptagon, which is four and seven. A comes to nine, B to ten, D to seven and E to nine.
31	E	Which shape is hatched and which is black changes from one to the next, so what the three share is the pair of shadings themselves: one part hatched and one part black, in either order. E is a black trapezium holding a hatched square. A puts white with the hatching, B and C put grey with the black or the hatching, and D uses dots.
32	D	Each picture in the box is built from three parts, two of which are black - and the two black marks are never the same pair twice. D is a white trapezium holding a black square and a black star. A has one black mark and one grey, B has only two parts, C has one black mark and is grey outside, and E has no black in it at all.
33	C	Along the top row the black pentagon turns white, and nothing else about it changes. The white trapezium must turn black. A is grey rather than black and B is hatched, neither of which the square uses; D and E are still white and have only shrunk or turned.
34	E	Along the top row the triangle is flipped over top to bottom, as if a mirror lay beneath it. The trapezium must be flipped the same way, which turns its hatching over so that it leans the other way. All four of the others are turns, and a turn carries hatching round with it rather than turning it over - so in every one of them the hatching still leans as it did.
35	A	Along the top row the kite grows and keeps its hatching. The pentagon must grow by the same amount. B has not grown at all, C has grown far too much, D has shrunk and E is the right size only if you forget that it should have grown - it has merely been turned.
36	D	Along the top row only the mark inside changes: it turns from black to grey while the shape around it stays white. A has made the square grey as well, B has grown the star instead of greying it, D has greyed the square and left the star black, and E has changed nothing but the size.

37	B	Along the top row the arrowhead is turned a quarter turn clockwise - 270 degrees anticlockwise comes to the same thing. The triangle must be turned the same way, hatching and all. A turns it three eighths, C is a half turn, D turns only an eighth and E is a reflection, which leaves the hatching leaning the wrong way.
38	E	Along the top row the pentagon becomes a circle and keeps everything else - its size and its hatching. Whatever the shape in the bottom row is, it must become a circle of the same size, still grey. A and B choose the wrong shape, C is still a kite and has only shrunk, and D is still a kite with a dashed outline.
39	C	Along the top row the shape outside stays exactly where it is and the mark inside drops from the top to the bottom, staying the same way up as it goes. The semicircle must make the same journey. A drops it only halfway, B takes it down and across instead of straight down, and D and E turn the whole picture, which leaves the semicircle lying on its back or on its side.
40	D	Along the top row the whole picture is reflected in a mirror running from the top left corner down to the bottom right. Doing the same to the triangle turns its hatching the other way as well as moving its right angle. A uses the rising diagonal, which lands somewhere else entirely, and B, C and E are turns, which leave the hatching leaning as it was.
41	B	Every shape is the same hexagon, so the hexagon is not being coded. The one holding a single dot takes P and the two holding a pair take Q, so the top letter counts the dots. The solid outlines take X and the dashed one takes Y, so the bottom letter is the outline. A dashed hexagon with one dot is therefore PY.
42	E	The pentagon is the same size every time, so its own size is not coded: it is the dot that changes. The small dot takes D and the large ones take E. The white pentagons take M and the grey one takes N, so the bottom letter is the shading. A grey pentagon with a small dot is DN.

43	C	The top letter counts how much of the picture is curved: nothing curved takes D, one curved part takes E and two take F. The solid outlines take M and the dashed one takes N. The test shape is a square holding a round dot - one curved part - drawn with a dashed outline, so EN.
44	A	Both squares are shaded over half of themselves, but they take different top letters, so the top letter is which half is shaded: the left half takes P and the top half takes Q. The squares take X and the pentagon takes Y. A pentagon shaded on its left is PY.
45	D	Every picture holds the same two marks, so counting them settles nothing: the top letter is how many of them are filled in . None takes D, one takes E and both take F. The pentagons take X and the hexagon takes Y. A hexagon with one mark filled in is EY.
46	B	A square holding a square and a pentagon holding a triangle share the letter D, so the top letter is not the shape: add the sides of the two shapes and D is eight while E is nine. The grey ones take M and the white one takes N. The test shape is a trapezium holding a kite - four and four make eight - and it is white, so DN.
47	E	Both letters run through three values here. The top letter is the white mark inside: a dot takes D, a square takes E and a star takes F - and it cannot be the shading, because one grey hexagon takes E and another takes F. The bottom letter is the shading: white takes M, grey N and black P. A white hexagon holding a square is EM.
48	C	The top letter runs through three shadings: R is hatched, S is dotted and T is grey. It cannot be the shape, because one dotted shape is a circle and the other a pentagon. The curved shapes take J and the straight-sided one takes K, so the bottom letter says whether there is a curve. A hatched square is straight-sided, so RK.