Non-Verbal Reasoning Mock Test 13 Answers

Q#	Answer	Explanation
1	C	The arrow's stem stands on the left and its head points right, at the top. An upright mirror swaps left and right, so the stem moves to the right and the head points **left**, still at the top: C. A also points left, but from the bottom, which is a half turn; B still points right, from the bottom; and D and E lie on their sides.
2	A	The triangle has its square corner at the bottom left and its long side along the bottom. An upright mirror swaps left and right, so the square corner moves to the **bottom right**, the long side stays along the bottom and the stripes still run across: A. C also has its square corner at the bottom right, but its long side stands up the right-hand side and its stripes run up and down, which is a quarter turn. B is upside down, D has its square corner at the top left, and E is dotted and has not moved.
3	D	The chair faces right, with its back on the left. A mirror lying flat underneath turns it upside down - legs in the air - but keeps left and right as they were, so the back still hangs on the **left**: D. A is upside down too, but with its back on the right, which is a half turn. B faces left the right way up, and C and E lie on their sides.
4	E	The mirror falls from the top left to the bottom right. The two dots one above the other on the left come back **side by side along the top**, at the left and in the middle, and the low dot comes back on the right, a little below the middle: E. B also has two dots along the top, but in the middle and on the right, with the third on the left - that is a quarter turn. A has two along the bottom, C has its pair along the bottom and its third dot on the left, and D still has its pair standing on the right.

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5	B	The triangle points left with a black square low in the middle. An upright mirror makes it point **right** and keeps the square **low**: B. A also points right, but its square is high, which is a half turn. C still points left with the square low, D points left with the square only moved, and E points down.
6	D	The mirror rises from the bottom left to the top right. The black arrow, at the top left pointing right, comes back at the **bottom right** pointing **up**; the grey arrow, at the bottom right pointing up, comes back at the top left pointing **right**: D. E is the trap - the arrows have changed places but kept their old directions, so the black one points right and the grey one up. A has them in the right places but pointing left and down, which is a half turn; B has the black arrow at the top right, and C has left them where they were and only turned them.
7	A	The mirror falls from the top left to the bottom right. The wide top of the bolt comes back along the **left**, and its point, at the bottom left, comes back on the **right**, a little **above** the middle: A. C also has its wide end on the left and its point on the right, but it is a quarter turn: its point is a little below the middle and its zigzag runs the other way. B and D have the wide end on the right, and E is a back-to-front bolt.
8	C	A mirror lying flat underneath swaps top and bottom and keeps left and right: the grey circle goes to the bottom left, the black square to the bottom right and the triangle to the top. The triangle is **flipped** as well, so its square corner moves from its bottom left to its **top left**: C. D is the trap - every piece is in the right place but the triangle has only slid up, so its square corner is still at the bottom. A has the circle and square on the wrong sides, which is a half turn, B is an upright mirror, and E is a slanting one.
9	B	Each square has **one more** dot than the one before: one, two, three, four. So the next has **five**: B. A has four, the same as the last, C has six, and D and E go back to three and two.

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10	D	Each arrow is the one before turned an **eighth of a turn anticlockwise**. The head points right, then up and to the right, then straight up, then up and to the left - so next it points straight **left**, from the bottom, with its stem standing up on the right: the first arrow upside down: D. A turns back the other way, B turns a quarter turn too far, C is a mirror image of the last arrow, and E is the last arrow dotted.
11	C	Two things happen at every step: the hexagon **grows**, **and** it gets a shade **lighter** - black, dark grey, grey, light grey. So the next is the biggest yet and **white**: C. A is bigger but still light grey, B is white but has not grown, D is bigger but has gone back to grey, and E is white but has shrunk.
12	A	The bolt is flipped to and fro in a slanting mirror: the first and third are the same, and so are the second and fourth. So the fifth is the same as the **first** and the third, wide at the top with its point at the bottom left: A. B, C, D and E are the fourth bolt turned or flipped some other way, and none of them matches the first.
13	E	Two things happen at every step: the white circle climbs one step up the slant from the bottom left corner, **and** the square gets a shade darker - white, light grey, grey, dark grey. So next the square is **black** and the circle has reached the **top right** corner: E. A has the circle in the corner but the square still dark grey, B is black but the circle has not moved, C has moved the circle back down, and D has moved it only across.
14	B	Two things happen at every step: the dot hops on to the **next corner clockwise** - top, bottom right, bottom left, top - **and** it changes between black and white. The fourth dot is white, at the top, so the next is **black**, in the **bottom right** corner: B. A has hopped but is still white, C is black but has not moved, D has hopped the wrong way, to the bottom left, and E has hopped but is grey.

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15	A	Two things happen at every step: the arrow turns a quarter turn **anticlockwise** - right, up, left, down - **and** the circle changes between white and dotted. The fourth arrow points down in a dotted circle, so the next points **right** in a **white** circle: A. B points right but the circle is still dotted, C is white but still points down, D points left and E points up.
16	D	Two things happen at every step: the dot and the arrow **change places**, **and** each changes colour - so whichever shape is on the **left** is always the black one. The fourth picture has the arrow on the left, so next the dot is back on the left, **black**, with a white arrow on the right: D. A has swapped the places but not the colours, B the colours but not the places, and C and E have made both shapes the same colour.
17	C	The shapes in the box are shaded differently and turned different ways, but every one is a **pentagon**, with five sides. C, a striped pentagon standing on its flat side, is the same. A is a hexagon, B a heptagon, D a square and E an octagon.
18	A	Every shape in the box is a **star** with five points, shaded and turned a different way each time. A is a star too. B is a cross, C a pentagon, D an arrow and E a circle.
19	C	Every picture in the box has three parts, and all three are **four-sided** - squares, kites, trapeziums, rectangles, parallelograms, in a row or one inside another. C, a parallelogram, a square and a trapezium, is the same. A has a triangle, B only two parts, D a pentagon, and E two triangles inside its rectangle.
20	D	Every picture in the box has three parts, and exactly **two** of them have dashed outlines - the outside shape or not, it does not matter. D, a grey circle holding a dashed square and a dashed triangle, is the same. A has only one dashed part, B all three, C only two parts, and E none.
21	B	Every picture in the box is **two** shapes side by side, and both are **grey**. B, a grey arrow beside a grey dot, is the same. A has a light grey circle, C is only one shape, D has a dark grey triangle, and E has three grey shapes.

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22	E	Add up the sides in each picture. A square and a heptagon make 4 + 7 = 11, a pentagon and a hexagon make 5 + 6 = 11, and a triangle and two squares make 3 + 4 + 4 = 11. E, a kite beside a heptagon, makes 4 + 7 = 11 as well. A comes to twelve, B to twelve, C to ten, and D to ten.
23	B	Every picture in the box has three parts, and **all three are shaded** - grey, light, dark, dotted or striped - but **none** of them is black. B, a striped circle, a light grey kite and a grey square, is the same. A has a black star, C has a white square, D has only two parts, and E has four.
24	A	Two things are true of every picture in the box: exactly **one** part has a dashed outline, and exactly **one** part is shaded over half - sometimes the same part, sometimes not. A, a half-shaded pentagon holding a dashed triangle, is the same. B has nothing dashed, C nothing half shaded, D two dashed parts, and E two half-shaded parts.
25	B	Along the top row the striped hexagon becomes **dotted**, and nothing else changes. So the arrow must be dotted too: B. A is grey, C black and D white, and E is still striped and has shrunk.
26	E	Along the top row the star steps **out** of the square and sits just **above** it, and nothing else changes. So the triangle must step out of the circle and sit above it, still black: E. A has gone out below, B out to the right, C has only moved up inside the circle, and D is above it but white.
27	D	Along the top row **both** marks shrink to half their size, where they stand, and the circle stays as it was. So the triangle and the dot must both shrink inside a hexagon of the same size: D. A has shrunk only the triangle and B only the dot, C has shrunk the hexagon as well, and E has grown both marks.

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28	A	Two things happen along the top row: the triangle is reflected in a mirror running from the top left to the bottom right, which stands its long bottom side up on the **right**, **and** it is shaded light grey. Do the same to the trapezium: its long side stands up on the right and its short upright side lies along the **bottom**, in light grey: A. B is reflected but still white, C is light grey but not reflected, D uses the other slanting mirror, so its long side is on the left, and E is a quarter turn clockwise, with its long side on the left too.
29	C	Along the top row the two marks **swap sizes** without moving: the small star on the left becomes big and the big circle on the right becomes small. So the small square must grow and the big triangle shrink, each staying where it is: C. A has swapped their places instead, so the big triangle is on the left; B has grown the square but not shrunk the triangle, D has shrunk the triangle but not grown the square, and E has grown the square but made the triangle white instead of shrinking it.
30	E	Two things happen along the top row: the trapezium is flipped left to right, so its upright side moves from the right to the left, **and** its dot is taken away. So the triangle must be flipped, which moves its square corner from the bottom left to the **bottom right**, and lose its square: E. A has lost the square but not flipped, B has flipped but kept the square, C has its square corner at the top right, which is a half turn, and D at the top left.
31	B	Two things happen along the top row: the grey star in the **middle** is taken away, **and** the two marks either side of it swap colours - the black circle turns white and the white triangle turns black. So the grey cross must go, the white square turn **black** and the black dot turn **white**: B. A has lost the cross but not swapped the colours, C has swapped them but kept the cross, D has lost the square instead of the cross, and E has made both marks black.

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32	D	Two things happen along the top row: the trapezium is turned a quarter turn **clockwise**, carrying its marks round with it, **and** the two marks swap colours. So the semicircle must turn a quarter turn clockwise, so that its curve faces **right**, with the star - now **white** - at the top and the circle - now **black** - at the bottom: D. A is turned but the colours have not swapped, B has swapped them but not turned, C faces left and E faces down.
33	C	Along each row the shape stays the same but its filling changes: white, then **dotted**, then **striped**. C is the pentagon striped. A goes back to white, B is black and D grey, which the rows never use, and E is still dotted and has shrunk.
34	E	Along each row two things happen at every step: the shape **grows**, **and** its outline switches between solid and dashed. The middle circle is dashed, so the last is the biggest circle with a **solid** outline, still light grey: E. A has grown but is still dashed, B is solid but has not grown, C is solid but has shrunk, and D is grey.
35	A	Along each row the two marks **move apart**, a step further each time, one to the left and one to the right. A has the triangle and the square at the two ends of the hexagon. B has moved both to the right, C has moved them back together, D has moved only the triangle, and E has turned them grey.
36	D	Along each row two things happen at every step: the shape is flipped **upside down**, **and** it changes between black and white. The middle trapezium is white and upside down, so the last is **black** and the right way up again, with its long side along the bottom and its upright side on the right: D. A is the right way up but white, B is black but still upside down, C has its upright side on the left, which is a half turn, and E is upside down with its upright side on the left.
37	B	In each row the third picture holds **everything** from the first two, each mark staying where it was. The hexagon holds a square at the bottom in the first box and a dot on the right in the second, so the last has **both**: B. A has only the square, C has neither, D has moved the square to the top, and E has moved the dot to the left.

38	A	Along each row two things happen at every step: the two marks **change places**, **and** the outside shape gets a shade darker - white, light grey, grey. The middle pentagon has the arrowhead on the left, so the last has the **cross** back on the left and is **grey**: A. B has swapped the marks but kept the pentagon light grey, C is grey but has not swapped them, D has gone too dark, and E has gone back to white.
39	E	Along each row two things happen at every step: the shape is given a **half turn**, **and** it gets darker - white, light grey, dark grey. The triangle starts with its square corner at the bottom left, so after two half turns it is back there, and it is **dark grey**: E. A has turned but is still light grey, B is dark grey but has not turned, so its square corner is at the top right, C has its square corner at the top left, and D at the bottom right.
40	D	In each row the third picture is the first with the second **taken away**: whatever appears in the middle box is removed, and the rest stays where it was. Taking the hexagon away from the bottom row leaves the **square** at the bottom left and the **dot** at the top: D. A keeps only the hexagon, B has taken nothing away, C has lost the dot as well, and E keeps the dot but has the hexagon in the square's place.
41	C	The pentagons take J and the arrow takes K, so the top letter is the shape. The dotted shape takes S and the grey ones take T, so the bottom letter is the filling. A dotted arrow is KS.
42	A	The big heptagons take D and the small one takes E, so the top letter is the size. The solid outlines take X and the dashed one takes Y, so the bottom letter is the outline. A small dashed heptagon is EY.
43	D	The mark sits in a different place every time, so where it is is not coded. The top letter is the mark: a triangle takes L and a dot takes M. The bottom letter is the square's outline: solid takes V and dashed takes W. The test shape is a dashed square holding a triangle, so LW.

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44	B	The shapes change every time and are not coded. The top letter counts them: one takes P, two take Q and three take R. The bottom letter is the filling: striped takes X and black takes Y. The test shape is three black shapes, so RY.
45	A	The big shapes are different sizes, which is not coded. The top letter is the shape outside: a circle takes D, a square E and a triangle F. The bottom letter is the colour of the mark inside: black takes J and white takes K. The test shape is a square holding a black triangle, so EJ.
46	D	Count the parts made only of **straight** lines - a star counts, a circle or a dot does not. One takes L, two take M and three take N. The bottom letter says whether anything is dashed: nothing takes X and one dashed part takes Y. The test shape is a pentagon holding a triangle, a dot and a square: three straight-sided parts and nothing dashed, so NX.
47	E	Every shape is a circle holding a white mark, and the circles are different sizes, which is not coded. The top letter counts the mark's **sides**: two different triangles share Q, a kite and a square share R, and the pentagon takes S. The bottom letter is the circle's shading: white takes V and grey takes W. The test shape is a grey circle holding a pentagon, so SW.
48	C	Count the shapes shaded over **half** - any half: one takes D, two take E and none takes F. The bottom letter says whether anything is dashed: nothing takes X and one dashed part takes Y. The test shape is a dashed pentagon holding a half-shaded square: one half-shaded shape and one dashed part, so DY.

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