11+ Non-Verbal Reasoning

Multiple choice · 24 questions · about 45 minutes

Pupil's name	School
Date	Age (years / months)

Please mark each box with a thin horizontal line like this ▬

Answer sheet

Non-Verbal Reasoning · questions 1 to 24 · choose one answer per question

1	2	3	4	5	6	7	8	9	10
A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐
B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐
C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐
D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐
E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐

11	12	13	14	15	16	17	18	19	20
A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐	A ☐
B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐	B ☐
C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐	C ☐
D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐	D ☐
E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐	E ☐

21	22	23	24
A ☐	A ☐	A ☐	A ☐
B ☐	B ☐	B ☐	B ☐
C ☐	C ☐	C ☐	C ☐
D ☐	D ☐	D ☐	D ☐
E ☐	E ☐	E ☐	E ☐

This paper covers the full range of 11+ non-verbal reasoning: odd-one-out, series, analogies, grids, codes and mirror images. The figures are deliberately tricky. Most combine several features at once, the shape, the shading, the lines, the dots and the direction, and the wrong answers each get all but one feature right, so work out every rule before you choose.

1 Which figure is the odd one out?

A 

B 

C 

D 

E 

2 Which figure is the odd one out?

A 

B 

C 

D 

E 

3 Which figure on the bottom row belongs with the group above?

A 

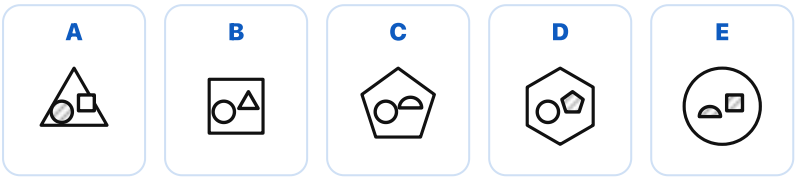
B 

C 

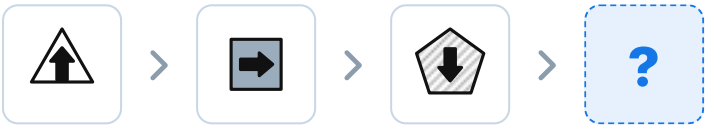
D 

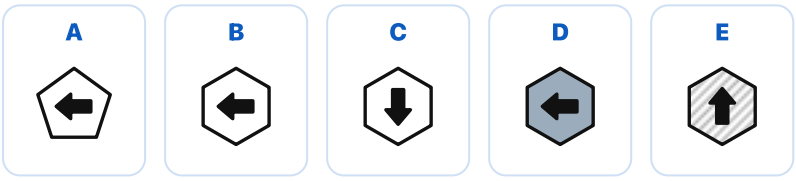
E 

4 Which figure on the bottom row belongs with the group above?

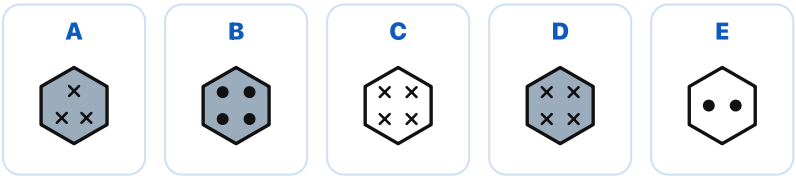


5 Which figure comes next in the sequence?





6 Which figure comes next in the sequence?



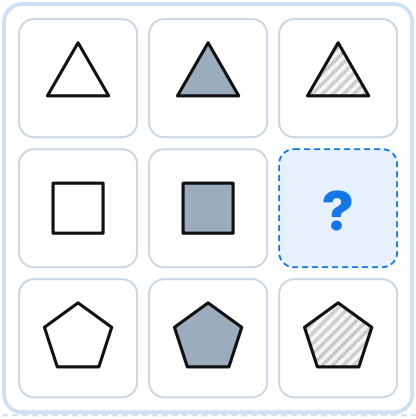
7 Which figure comes next in the sequence?

A 
B 
C 
D 
E 

8 Which figure comes next in the sequence?

A 
B 
C 
D 
E 

9 Which figure completes the grid?



A 

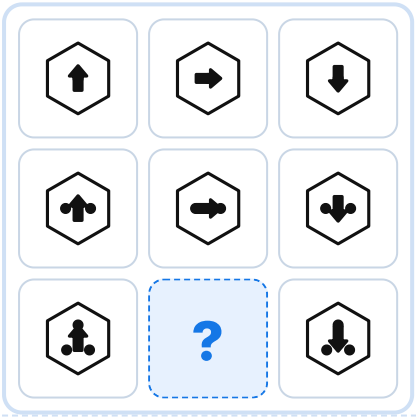
B 

C 

D 

E 

10 Which figure completes the grid?



A 

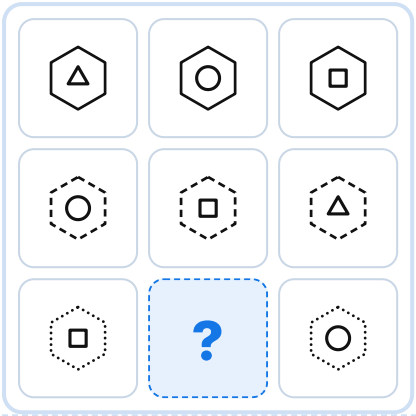
B 

C 

D 

E 

11 Which figure completes the grid?



A 

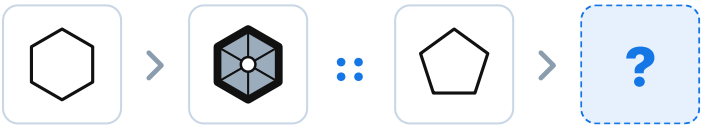
B 

C 

D 

E 

12 Work out how the first pair go together, then complete the second pair.



A 

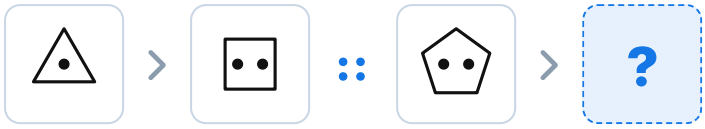
B 

C 

D 

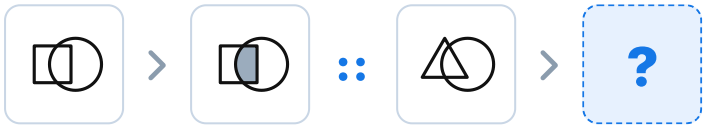
E 

13 Work out how the first pair go together, then complete the second pair.



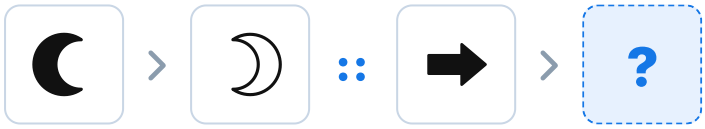
A 
B 
C 
D 
E 

14 Work out how the first pair go together, then complete the second pair.



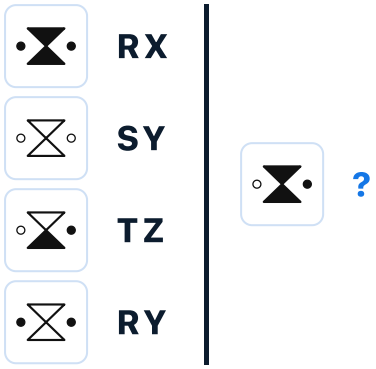
A 
B 
C 
D 
E 

15 Work out how the first pair go together, then complete the second pair.



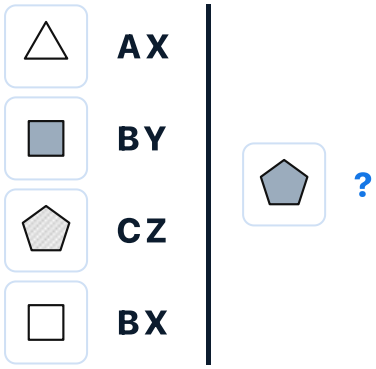
A 
B 
C 
D 
E 

16 Work out the code for the figure on the right of the line.



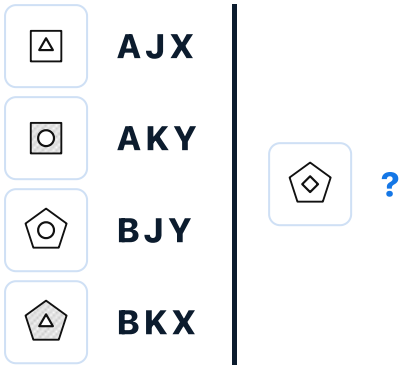
A	B	C	D	E
RZ	TY	SX	SZ	TX

17 Work out the code for the figure on the right of the line.



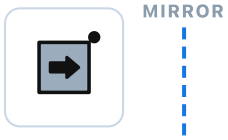
A	B	C	D	E
CZ	BY	CY	AX	BX

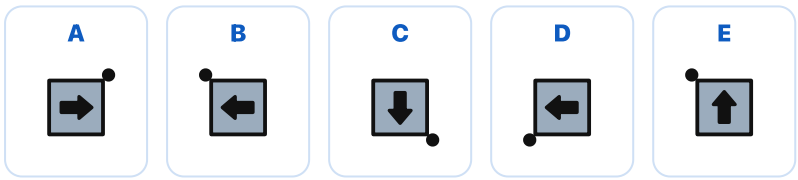
18 Work out the code for the figure on the right of the line.



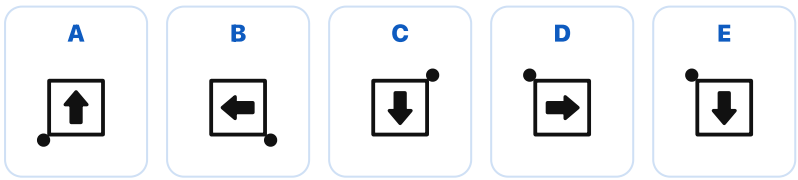
A	B	C	D	E
BJY	AJZ	BJZ	BKZ	BJX

19 Which figure is the mirror image of the figure on the left?





20 Which figure is the one on the left turned around, without being flipped over?



21 Which figure is the odd one out?

A 
B 
C 
D 
E 

22 Which figure is the odd one out?

A 
B 
C 
D 
E 

23 Which figure is the odd one out?

A 
B 
C 
D 
E 

24 Which figure is the odd one out?

A 
B 
C 
D 
E 

Mark one point per correct answer (24 total). This is a hard paper, so a score of 15 or more is a strong result. Always talk through the rule behind any your child missed.

Q1 · A In every figure the lines run from the centre out to the corners, except A, where the lines run to the middle of each side.

Q2 · C In every figure the number of dots equals the number of sides, except C: it is a six-sided hexagon but holds only five dots.

Q3 · D Each figure in the group has exactly two dots and is not shaded black. Only D, the grey hexagon with two dots, shares both features.

Q4 · D In every figure of the group, the curved shape inside is white and the straight-sided shape is hatched. Only D keeps both bindings. A swaps them, B leaves the straight shape unhatched, C has two curved shapes and E hatches everything. The outer shape is varied deliberately and is a red herring.

Q5 · B Three things change together: the shape gains a side, the inner arrow turns a quarter-turn clockwise, and the shading runs white, grey, hatched, then back to white. The answer is a white hexagon with the arrow pointing left.

Q6 · D The number of marks goes up by one, the marks alternate between dots and crosses, and the shading alternates white and grey. The next figure is a grey hexagon with four crosses.

Q7 · E The black point moves one position clockwise each time, a one-fifth turn. After the fourth point it reaches the fifth and final point. A jumps back to the start, B fails to advance, C blackens a second point and D swaps the colours of the whole star.

Q8 · D The arrow in each box points to the corner where the circle appears in the next box, so after the top-left corner the circle returns to the top-right, with the arrow moving on to point at the bottom-right. A repeats the previous box, B puts the circle in the wrong corner, C has two circles and E has a black circle.

Q9 · D Each row keeps one shape and each column keeps one shading (white, grey, hatched). The empty cell is in the square row and the hatched column, so it is a hatched square.

Q10 · B Down the grid the number of dots increases (one, two, three) and across the grid the inner arrow turns a quarter-turn clockwise. The missing figure has three dots and the arrow pointing right.

Q11 · A Two rules run at once: every row and column contains each inner shape exactly once, and the hexagon outline is solid in the first row, dashed in the second and dotted in the third. The missing cell needs a dotted hexagon with a triangle. B repeats the cell beside the gap, C and E have the wrong outline style, D breaks both rules.

Q12 · A From the first figure to the second, lines are drawn from the centre to every corner and the shading turns grey. Applied to the pentagon, that gives a grey pentagon with spokes to its five corners.

Q13 · B Each shape gains one side and one dot. The pentagon with two dots becomes a hexagon with three dots.

Q14 · E From the first figure to the second, the region where the two shapes overlap is shaded grey. Applied to the triangle and circle, the lens where they cross is shaded grey.

Q15 · B The crescent is flipped left-to-right and its shading swaps from black to white. The black right-pointing arrow therefore becomes a white left-pointing arrow. A flips without swapping the shading, C swaps the shading without flipping, D is the original unchanged and E points the wrong way.

Q16 · E The first letter stands for the two dots (R = both black, S = both white, T = one of each) and the second for the bowtie (X = black, Y = white, Z = half). The test figure has one dot of each colour (T) and a black bowtie (X), so the code is TX.

Q17 · C The first letter stands for the shape (A = triangle, B = square, C = pentagon) and the second for the shading (X = white, Y = grey, Z = hatched). The test figure is a grey pentagon, so its code is CY.

Q18 · C The first letter stands for the outline (A square, B pentagon), the second for the fill (J white, K hatched) and the third for the inner shape (X triangle, Y circle). The test figure is a white pentagon, so B and J, but its diamond never appears in the key, so it needs the unused letter Z: BJZ. Option A just repeats a key code.

Q19 · B A mirror image flips the figure left to right. The arrow that pointed right now points left and the corner dot moves from the right side to the left. B is the only true reflection; the others are rotations of the original.

Q20 · E The figure can be turned to match the target without flipping it. E is the target turned a half-turn, so the arrow and the corner dot both move to the opposite side and still match. The other four are mirror images, which are not allowed.

Q21 · C In every figure the region where the two shapes overlap is shaded grey, except C, where the overlap is left blank.

Q22 · C In every box each shape is shaded the opposite colour to the half it sits on (white on the black half, black on the white half), except C, where the bar is white on the white half and only shows as an outline.

Q23 · A In every figure the two small circles sit on opposite sides of the big circle, except A, where they are both at the top, next to each other.

Q24 · E Four of the hexagons are the same figure simply turned to a new position. E is a mirror image of that figure, which cannot be made by turning it, so it is the odd one out.