

Maths Skills Diagnostic Test

Sixteen questions across Number, Algebra, Geometry and Statistics, with a results table to plan revision.

Name _____ Date _____ Class _____

Learning objective: I can find my strongest and weakest areas of KS3 maths.

✓ I can attempt every strand ✓ I can mark my work ✓ I can choose what to revise

Answer every question. Show your working. When you have finished, mark your work and fill in the results table on page 2.

1 Number

1 Round 6,483 to the nearest hundred.

Answer

2 Work out $-7 + 12$.

Answer

3 Write $\frac{3}{5}$ as a percentage.

Answer

4 Work out 15% of 80.

Answer

2 Algebra

1 Simplify $4a + 3b - a + 2b$.

Answer

2 Solve $3x + 4 = 19$.

Answer

3 Find the n th term of 5, 8, 11, 14, ...

Answer

4 Expand $4(2y - 3)$.

Answer

Maths Skills Diagnostic Test

3 Geometry and measures

- 1 Find the area of a triangle with base 10 cm and height 6 cm.

Answer

- 2 Two angles in a triangle are 48° and 71° . Find the third angle.

Answer

- 3 Find the volume of a cuboid 5 cm $\times$ 4 cm $\times$ 3 cm.

Answer

- 4 Find the circumference of a circle with diameter 10 cm. Use $\pi = 3.14$.

Answer

4 Statistics and probability

- 1 Find the mean of 7, 3, 9, 3, 8.

Answer

- 2 Find the median of 7, 3, 9, 3, 8.

Answer

- 3 Find the mode of 7, 3, 9, 3, 8.

Answer

- 4 A fair dice is rolled. What is the probability of rolling a number greater than 4?

Answer

5 My results Score each strand out of 4, then choose what to revise next.

Strand	Score / 4	Topic to revise next
Number		
Algebra		
Geometry and measures		
Statistics and probability		

Answer Key

Maths Skills Diagnostic Test

Question	Answers
1 Number	1 6,500; 2 5; 3 60%; 4 12
2 Algebra	1 $3a + 5b$; 2 $x = 5$; 3 $3n + 2$; 4 $8y - 12$
3 Geometry and measures	1 30 cm^2 ; 2 61° ; 3 60 cm^3 ; 4 31.4 cm
4 Statistics and probability	1 6; 2 7; 3 3; 4 $2/6 = 1/3$
5 My results	Number – Score / 4: pupil's score , Topic to revise next: pupil's choice Algebra – Score / 4: —, Topic to revise next: — Geometry and measures – Score / 4: —, Topic to revise next: — Statistics and probability – Score / 4: —, Topic to revise next: —

Teaching note: questions rise in difficulty within each strand (roughly Year 7 to Year 9). All answers were calculated in code. A score of 0–2 in a strand suggests revising that strand first.