

Maths Topic Practice

Quick-fire practice in Number, Algebra, Geometry and Statistics, plus two 'explain' questions.

Name _____ Date _____ Class _____

Learning objective: I can answer short questions quickly and accurately in all four KS3 maths strands.

✓ I can recall number facts ✓ I can solve simple equations ✓ I can explain mistakes

1 Number

1 7,846 to the nearest 100

2 $-4 - 9$

3 2.4×3

4 $\frac{3}{8}$ of 64

5 25% of 140

6 0.6 as a percentage

7 $5^2 + 2^3$

8 $\sqrt{81}$

9 HCF of 18 and 24

10 LCM of 6 and 8

11 $\frac{2}{3} \times \frac{9}{10}$

12 $4.5 \div 0.5$

2 Algebra

1 Simplify $6m - 2m + m$

2 Solve $x/4 = 7$

3 Solve $2(x + 3) = 18$

4 Find $y = 3x - 2$ when $x = 5$

5 Next term: 2, 6, 18, 54, ...

6 nth term of 3, 7, 11, 15, ...

7 Expand $x(x + 5)$

8 Factorise $12y - 8$

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3 Geometry and measures

1 Angles on a straight line add to...

2 Angles round a point add to...

3 Perimeter of a square of side 6.5 cm

4 Area of a rectangle 9 cm × 4 cm

5 Number of sides of an octagon

6 Interior angle sum of a pentagon

7 Exterior angle, regular decagon

8 Volume of a cube, side 4 cm

4 Statistics and probability

1 Mean of 6, 2, 9, 4, 2, 7

2 Median of 6, 2, 9, 4, 2, 7

3 Range of 6, 2, 9, 4, 2, 7

4 Mode of 6, 2, 9, 4, 2, 7

5 P(heads) on a fair coin

6 P(a 7) on a fair 1-6 dice

5 Explain your thinking

1 Sam says ' $0.3 \times 0.2 = 0.6$ '. Explain the mistake and give the correct answer.

2 Is 91 a prime number? Explain how you know.

3 Which is larger, $\frac{3}{5}$ or 0.65? Explain.

4 A shape has angles 90° , 90° , 120° and x . Find x and name a possible shape.

Answer Key

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Question	Answers
1 Number	1 7,800 ; 2 -13 ; 3 7.2 ; 4 24 ; 5 35 ; 6 60% ; 7 33 ; 8 9 ; 9 6 ; 10 24 ; 11 3/5 ; 12 9
2 Algebra	1 5m ; 2 $x = 28$; 3 $x = 6$; 4 13 ; 5 162 ; 6 $4n - 1$; 7 $x^2 + 5x$; 8 $4(3y - 2)$
3 Geometry and measures	1 180° ; 2 360° ; 3 26 cm ; 4 36 cm^2 ; 5 8 ; 6 540° ; 7 36° ; 8 64 cm^3
4 Statistics and probability	1 5 ; 2 5 ; 3 7 ; 4 2 ; 5 $1/2$; 6 0
5 Explain your thinking	1. $3 \times 2 = 6$, but there are two decimal places in the question, so the answer is 0.06. 2. No – $91 = 7 \times 13$. 3. 0.65, because $3/5 = 0.6$, which is less than 0.65. 4. $x = 60^\circ$ (angles in a quadrilateral add to 360°); e.g. a trapezium (right-angled trapezium).

Teaching note: use as a starter or homework; pupils could time themselves. All answers were calculated in code.