Maths Mock Test Paper 19 Answers

Q#	Answer	Explanation
1	C	The clock reads twenty past four. Forty minutes later it is five o'clock, and five minutes more makes 5:05.
2	D	A kilogram is 1,000 g, and half of 1,000 is 500 g.
3	B	Rounded to the nearest pound the prices become £2, £4, £1 and £4. Adding those gives 2 + 4 + 1 + 4 = 11, so the estimate is £11. The exact total is £11.30, so the estimate is a good one.
4	C	7 × 6 = 42. You can also think of it as double 21.
5	C	The perimeter is 6 + 3 + 6 + 3 = 18, so 18 centimetres. The area is 6 × 3 = 18, so 18 square centimetres. The two numbers are the same, even though one counts length and the other counts squares.
6	B	Counting down 4 from floor 1 gives 0, −1, −2, −3.
7	D	Every pupil appears once on the diagram, including the 4 who sit outside both circles. Adding all four numbers gives 8 + 6 + 5 + 4 = 23 pupils.
8	E	A triangle with all three sides equal is equilateral, and all three of its angles are 60°. An isosceles triangle has only two equal sides and a scalene triangle has none.
9	A	There are 1 + 5 = 6 parts, so one part is 600 ÷ 6 = 100 ml. The squash is 1 part, which is 100 ml.
10	B	6.3 − 1.8: take away 2 to get 4.3, then add back 0.2 to give 4.5.
11	B	The angles lie on a straight line, so 5x + 4x = 180°. That gives 9x = 180°, so x = 20°.
12	C	Bus C reaches the gate at 08:38, which is before 08:40. Bus D leaves later but does not arrive until 08:53, so it is no good. Bus C is therefore the latest one Anna can catch.
13	B	Moving 7 steps to the right from −18 gives −11, which is still below zero.

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14	B	Turn them all into decimals: 1/4 = 0.25, 0.3 stays as it is, 35% is 0.35 and 2/5 = 0.4. In order from smallest that is 1/4, 0.3, 35%, 2/5.
15	A	To round to 1 decimal place, only look at the 2nd decimal digit (4). Since 4 < 5, we round down. 2.449 → 2.4. Never cascade-round (2.449 → 2.45 → 2.5 is incorrect).
16	C	Four 25s make 100, so eight 25s make 200.
17	C	Five presses take away 0.05 altogether. Counting back in hundredths from 4.03 gives 4.02, 4.01, 4.00, 3.99, 3.98, and 4.03 − 0.05 = 3.98 agrees.
18	C	The sequence goes up in 5s. From the 1st to the 12th term there are 11 steps, so 7 + 11 × 5 = 62.
19	C	Along the box 20 ÷ 5 = 4 cubes fit, across it 15 ÷ 5 = 3 fit and up it 10 ÷ 5 = 2 fit. Altogether that is 4 × 3 × 2 = 24 cubes.
20	C	Do both multiplications first: 8 × 7 = 56 and 4 × 3 = 12. Then add: 56 + 12 = 68.
21	C	Tuesday was 3 °C and Friday was −4 °C. Climbing from −4 °C up to zero is 4 degrees and on up to 3 °C is 3 more, so the gap is 4 + 3 = 7 degrees. The nearest of the others is Tuesday and Wednesday, which are 8 degrees apart.
22	E	The line goes through the origin, so the rule is y = something times x. Since x = 2 gives y = 6, each x is multiplied by 6 ÷ 2 = 3, so the equation is y = 3x.
23	D	Work out each speed in kilometres per hour: Ali 30 ÷ 2 = 15, Beth 24 ÷ 1.5 = 16, Cara 45 ÷ 3 = 15 and Dan 20 ÷ 1 = 20. The largest is Dan, at 20 km/h. Riding furthest is not the same as riding fastest.
24	D	Multiply top and bottom by 5 to make hundredths: 13/20 = 65/100 = 65%.
25	A	p and r sit opposite each other where the lines cross, and so do q and s. Vertically opposite angles are always equal, whatever the tilt of the lines. It is p and q that lie on a straight line together and add to 180°, while all four together make a full turn of 360°.
26	C	Divide the pages by the rate: 630 ÷ 45 = 14 minutes.

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27	C	Each symbol stands for 10 books, so Class 1 read 30, Class 2 read 25 and Class 3 read 15, giving 30 + 25 + 15 = 70 books. That leaves 90 − 70 = 20 books for Class 4, and 20 ÷ 10 = 2 symbols.
28	C	Each person needs 600 ÷ 4 = 150 ml of stock, so 7 people need 7 × 150 = 1050 ml.
29	C	The lawn is 8 × 5 = 40 m² and the flower bed is 3 × 2 = 6 m², so 40 − 6 = 34 m² is left.
30	C	The Wednesdays are 1, 8, 15, 22 and 29, so the third Wednesday is 15 March. Five days beginning on the 15th are the 15th, 16th, 17th, 18th and 19th, so the camp ends on 19 March, which the calendar shows is a Sunday.
31	C	Take 2 from both sides: x ÷ 3 = 4. Then multiply by 3: x = 12.
32	D	Leading zeros are not significant. The first significant figure is 5. The next digit is 7, which is 5 or more, so we round up. 0.0572 → 0.06.
33	B	The numbers that divide exactly into 60 are 1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30 and 60. Of the five offered only 12 appears in that list, and 12 is in the 6 times table too, since 6 × 2 = 12. The numbers 18 and 24 are in the 6 times table but do not divide 60 exactly.
34	C	3 kg is 3,000 g, and 3,000 ÷ 6 = 500 g for each book.
35	A	Subtracting 1,000 reduces the thousands digit by one.
36	D	Taking away a negative number is the same as adding one, so 12 − (−5) gives 17, which is above zero. The other four give −7, −17, −9 and −5, and all of those are below zero.
37	D	4.5 litres is 4,500 ml, and 4,500 ÷ 250 = 18 cartons.
38	D	The length is 60 ÷ 5 = 12 cm, so the perimeter is 2 × (12 + 5) = 34 cm.
39	C	The sale price is 80% of the original. Since 80% is £68, then 20% is £17 and the full price is 5 × £17 = £85.

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40	C	Two hours 30 minutes is 2.5 hours, so the van covers 72 × 2.5 = 180 km. At 1 litre for every 12 km that journey needs 180 ÷ 12 = 15 litres.
41	C	Multiplication comes first: 750 × 4 = 3,000. Then 3,000 − 1,000 = 2,000.
42	C	From the 1st to the 30th is 29 days. Since 29 = 28 + 1 and 28 days is exactly 4 weeks, the 30th is one day after a Monday, which is a Tuesday.
43	C	A fraction of a fraction is found by multiplying, so 1/3 × 3/4 = 1/4 of the class. It is a quarter of everyone, not of the walkers only. Adding the two fractions instead would be a different question altogether.
44	C	The exterior angles add up to 360°, so the number of sides is 360° ÷ 45° = 8. An 8-sided regular polygon is an octagon.
45	B	Broken into primes, 30 is 2 × 3 × 5, and those three primes are all different. Each of the others repeats a prime: 24 is 2 × 2 × 2 × 3, 36 is 2 × 2 × 3 × 3, 45 is 3 × 3 × 5 and 49 is 7 × 7.
46	D	A whole number rounds to 40 if it lies from 35 to 44, so the largest it can be is 44. A whole number rounds to 70 if it lies from 65 to 74, so the largest is 74. The largest total is 44 + 74 = 118.
47	B	Anya covers 40 km in 4 hours, which is 40 ÷ 4 = 10 km/h, and Ben travels at 20 km/h. The difference is 20 − 10 = 10 km/h.
48	C	Solve 4n + 9 = 65. Taking 9 away gives 4n = 56, so n = 14.
49	D	The whole job is worth 4 × 6 = 24 days of work by one painter. Shared between 3 painters that is 24 ÷ 3 = 8 days. Fewer painters must mean more days, so any answer under 6 days has to be wrong.
50	A	Add the values: 90,000 + 4,000 + 300 + 70 + 2 = 94,372.

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