Maths Mock Test Paper 17 Answers

Q#	Answer	Explanation
1	B	One fifth means one shared between five, and 1 ÷ 5 = 0.2. Written as a percentage it would be 20%, so neither 5% nor 15% is right.
2	C	Adding 1 hour to 16:15 gives 17:15, and adding 30 more minutes gives 17:45.
3	B	The drink is made of 2 + 3 = 5 parts altogether, and 2 of those parts are juice, so juice makes up 2/5 of it.
4	B	Replace n with 12, which gives 12 ÷ 3 = 4.
5	B	Quarter past ten is 10:15 and five to eleven is 10:55. From 10:15 to 10:55 is 40 minutes.
6	C	278 rounds to 300 and 394 rounds to 400. 300 + 400 = 700. (The exact answer is 672, but the estimate by rounding is 700.)
7	D	Each layer of the cuboid holds 4 × 3 = 12 cubes, and there are two layers, so 12 × 2 = 24 cubes are used altogether.
8	A	Only the x-coordinate matters. The x-coordinates are −1, −5, 2, 0 and −3, and −5 is the smallest, so that point is furthest left.
9	A	Angles around a point add up to 360°. Here 100° + 160° = 260°, so x = 360° − 260° = 100°.
10	B	The numbers between −5 and −1 are −4, −3 and −2. Only −3 appears in the list: −6 lies below −5, while 0, 1 and 5 are all above −1.
11	B	Counting up avoids the borrowing: from 189 to 200 is 11, and from 200 to 306 is 106, so the difference is 11 + 106 = 117.
12	B	The angles of a quadrilateral add up to 360°. Here 85° + 95° + 100° = 280°, so the fourth angle is 360° − 280° = 80°.
13	D	There are 1,000 m in a kilometre, so 0.75 km is 0.75 × 1000 = 750 m. That is shorter than 800 m, and the gap between them is 800 − 750 = 50 m.

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14	B	5 − 9 = −4, then −4 + 3 = −1, so the lift is on floor −1.
15	A	To find how many hundreds are in £14,500, divide by 100. 14,500 ÷ 100 = 145. They will need 145 notes.
16	A	Each van comes with 3 cars, making groups of 4 vehicles, so there are 48 ÷ 4 = 12 groups. Every group holds exactly one van, so there are 12 vans.
17	B	5x = 5 × 4 = 20 and 2y = 2 × 6 = 12, so 20 − 12 = 8.
18	C	To round to 1 decimal place, look at the 2nd decimal digit. The 2nd decimal digit is 5, which is 5 or more, so we round up. 12.75 → 12.8.
19	B	Both points have a y-coordinate of 4, and so does every point on the line, which runs flat across the grid. That makes its equation y = 4. The line x = 4 would run vertically instead.
20	A	Take 2 hours off 16:05 to get 14:05, then count back 50 minutes to 13:15. Checking forwards: from 13:15 to 16:05 is 2 hours 50 minutes.
21	D	The rule doubles every x value, so when x = 4, y = 2 × 4 = 8. Reading up from 4 on the grid to the line and across gives the same answer.
22	A	Starting at −4 and counting back 9 goes further below zero. Since 4 + 9 = 13, the count finishes 13 below zero, at −13.
23	D	The first two significant figures are 3 and 7. The next digit is 5, which is 5 or more, so we round up. 37,500 → 38,000.
24	C	From 11:52 to 13:52 is 2 hours, and from 13:52 to 14:23 is 31 more minutes, making 2 hours 31 minutes.
25	A	The two whole squares are 2 × 12 = 24 cakes, and the half square is half of 12, which is 6. Altogether that is 24 + 6 = 30 cakes.
26	D	7 × 20 = 140 and 7 × 4 = 28, and putting the two parts back together gives 140 + 28 = 168.
27	D	If the difference is 6, taking it off the total leaves 24 to split equally, so the smaller is 12 and the larger is 12 + 6 = 18.

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28	D	Two litres is 2 × 1000 = 2,000 ml. One quarter of that is 2000 ÷ 4 = 500 ml, so three quarters is 500 × 3 = 1,500 ml.
29	D	The 65° angle and x sit next to each other on a straight line, so they add up to 180°. That gives x = 180° − 65° = 115°.
30	D	The number of bags must divide both 84 and 63, so it is their highest common factor. That is 21, giving 4 sweets and 3 chocolates per bag.
31	C	Add 3 to both sides: 4x = 24. Then divide by 4: x = 6.
32	C	The whole garden covers 8 × 5 = 40 m², and the shed stands on 2 × 2 = 4 m² of it, so the open ground is 40 − 4 = 36 m².
33	B	Dividing by 4 is the same as multiplying by 1/4: 2/3 × 1/4 = 2/12, which simplifies to 1/6.
34	B	The flour is five parts, so one part is 350 ÷ 5 = 70 g. The sugar is two parts, which comes to 70 × 2 = 140 g.
35	E	Comparing the tenths column, 0.403 and 0.43 are the largest. Comparing their hundredths, 3 is greater than 0, making 0.43 the largest.
36	D	The terms are 3, then 3 × 3 − 2 = 7, then 7 × 7 − 2 = 47.
37	B	Monday takes 240 ÷ 4 = 60 pages, leaving 240 − 60 = 180 pages. Tuesday takes a third of those, which is 180 ÷ 3 = 60 pages, so 180 − 60 = 120 pages are still to read.
38	B	Corner K is at (1, 7). A reflection in y = x swaps the coordinates round, so the image is at (7, 1).
39	B	The multiples of 7 between 30 and 50 are 35, 42 and 49. Taking 2 from each gives 33, 40 and 47, and only 40 is a multiple of 5, so the number is 42.
40	B	8 feet is about 8 × 30 = 240 cm, and 240 cm is 2.4 m.
41	D	They move apart at 8 + 12 = 20 km each hour, and 45 minutes is 0.75 hours, so the gap is 20 × 0.75 = 15 km.

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42	C	March has 31 days, so 25 March to 31 March is 7 days when both ends are counted. The 8 days of April up to and including the 8th bring the total to 7 + 8 = 15 days.
43	A	Using (n − 2) × 180° = 1260°, divide both sides by 180° to get n − 2 = 7, so n = 9.
44	C	Seven eights are 56, so the digits of the answer are 5 and 6. Since 0.7 is a little less than 1, the answer must be a little less than 800, which makes it 560.
45	D	19.7 rounds to 20, 31.2 rounds to 30, and 48.6 rounds to 50. 20 + 30 + 50 = 100. (The exact total is 99.5.)
46	B	The count runs 2.90, 2.95, 3.00, 3.05, 3.10 and onwards, so every number reached has a 0 or a 5 in the hundredths column. Only 3.10 does.
47	C	The total is −20 − 13 − 6 + 1 + 8 = −30, and −30 ÷ 5 = −6.
48	C	The Year 5 row must add up to its total of 30, and 14 pupils had a packed lunch, so the missing number is 30 − 14 = 16.
49	C	The 60 sweets split into 2 + 3 = 5 parts, so one part is 60 ÷ 5 = 12 sweets. That makes 2 × 12 = 24 red and 3 × 12 = 36 green, so 36 − 24 = 12 red sweets must be added.
50	C	Area of a triangle is half the base times the height: (13 × 10) ÷ 2 = 130 ÷ 2 = 65 cm².

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