11+ Practice Test Answers

11+ Maths Test 42

Question	Answer	Explanation	Marks
1	126	To find the total number of stickers, we need to add the number of stickers in each category: Football stickers: 38 Dinosaur stickers: 27 Car stickers: 19 Superhero stickers: 42 38 + 27 + 19 + 42 = 126 Therefore, the total number of stickers in Harry's collection is 126.	1
2	£157.50	To calculate the total amount Samantha will save after six weeks, we need to add up the amount she saves each week. In the first week, Samantha saves £15. In the second week, she saves £15 + £7.50 = £22.50. In the third week, she saves £22.50 + £7.50 = £30. In the fourth week, she saves £30 + £7.50 = £37.50. In the fifth week, she saves £37.50 + £7.50 = £45. In the sixth week, she saves £45 + £7.50 = £52.50. To find the total amount saved, we add up the savings from each week: £15 + £22.50 + £30 + £37.50 + £45 + £52.50 = £157.50 Therefore, Samantha will have saved a total of £157.50 after six weeks.	1
3	50p	To find out how much change Amelia receives, we need to: 1. Add up the cost of the items she bought: £2.20 (pens) + £1.80 (notebook) + 50p (ruler) = £4.50 2. Subtract the total cost from the amount she paid: £5 (paid) - £4.50 (total cost) = 50p Therefore, Amelia receives 50p in change.	1
4	16	To find Amelia's original number, we need to work backwards through her calculations. If she ended up with 21, we first multiply 21 by 5 (to undo the division) which gives 105, then subtract 9 (to undo the addition) which gives 96. Finally, we divide 96 by 6 (to undo the multiplication) to get her original number. Therefore, Amelia's original number was 16, because if we check our answer by following her steps: 16 × 6 = 96, then 96 + 9 = 105, and finally 105 ÷ 5 = 21.	1

5	8	To calculate the average (mean) of a set of numbers, we need to add up all the numbers and then divide by how many numbers there are. Amelia's scores are: 8, 7, 9, 6, 10 Adding these up: 8 + 7 + 9 + 6 + 10 = 40 There are 5 scores in total. So, to find the average, we divide the total by 5: 40 ÷ 5 = 8 Therefore, Amelia's average score across her last 5 spelling tests is 8.	**1**
6	175°	In a quadrilateral, the sum of all four angles is always 360°. We know two of the angles: 75° and 110°. To find the sum of the remaining two angles, we can subtract the known angles from 360°: 360° - (75° + 110°) = 360° - 185° = 175° Therefore, the sum of the remaining two angles in the quadrilateral is 175°.	**1**
7	0.8 kg	To find out how much flour Sarah needs, we first need to calculate how much flour is needed for one cupcake: 300g ÷ 15 = 20g per cupcake Now that we know each cupcake requires 20g of flour, we can calculate the amount needed for 40 cupcakes: 20g × 40 = 800g Finally, we need to convert grams to kilograms: 800g = 0.8kg Therefore, Sarah will need 0.8kg of flour to make 40 cupcakes.	**1**
8	4 kg	To find out how much more each portion of synthetic fertiliser weighs compared to each portion of organic fertiliser, we need to calculate the weight of each portion for both types of fertiliser. Organic fertiliser: Total weight = 132 kg Number of portions = 12 Weight of each portion = 132 kg ÷ 12 = 11 kg Synthetic fertiliser: Total weight = 90 kg Number of portions = 6 Weight of each portion = 90 kg ÷ 6 = 15 kg Now, we can find the difference between the weight of each portion of synthetic fertiliser and organic fertiliser: 15 kg - 11 kg = 4 kg Therefore, each portion of synthetic fertiliser weighs 4 kg more than each portion of organic fertiliser.	**1**

9	60	To solve this problem, let's use the formula for calculating the mean (average): mean = (sum of all values) ÷ (number of values) For the first five rounds, we have: 72 = (sum of scores for 5 rounds) ÷ 5 72 × 5 = sum of scores for 5 rounds 360 = sum of scores for 5 rounds Now, let's consider the average for all six rounds: 70 = (sum of scores for 6 rounds) ÷ 6 70 × 6 = sum of scores for 6 rounds 420 = sum of scores for 6 rounds To find the score for the sixth round, we subtract the sum of the first five rounds from the sum of all six rounds: score for 6^{th} round = (sum of scores for 6 rounds) - (sum of scores for 5 rounds) score for 6^{th} round = 420 - 360 score for 6^{th} round = 60 Therefore, Tom must have scored a 60 in the sixth round to achieve an average score of 70 for all six rounds.	1
10	Square	Samantha has drawn a square. A square is a quadrilateral (a shape with four sides) that has four equal sides and four right angles (90 degrees). A rectangle has four right angles but opposite sides are equal, not all four sides. A rhombus has four equal sides but doesn't have right angles. A parallelogram has opposite sides equal and parallel, but the angles are not right angles. Therefore, the only shape that fits Samantha's description is a square.	1