11+ Practice Test Answers

11+ Maths Test 23

Question	Answer	Explanation	Marks
1	432	A case of chocolates costs £14.94 and contains 6 boxes. Emma spent £89.64 on chocolates, which is equivalent to 6 cases, because: £89.64 ÷ £14.94 = 6 Each box contains 12 chocolates, and there are 6 boxes in a case. In 6 cases, there are 6 × 6 = 36 boxes. The total number of chocolates Emma bought is: 36 boxes × 12 chocolates per box = 432 chocolates. Therefore, the correct answer is 432 chocolates.	1
2	£4.95	To find the change Tom will receive, we first need to calculate the total cost of his purchase. Cost of pens: 2 × £1.25 = £2.50 Cost of pencils: 3 × 85p = £2.55 Total cost: £2.50 + £2.55 = £5.05 Now, we can calculate the change by subtracting the total cost from the £10 note: Change = £10 - £5.05 = £4.95 Therefore, the correct answer is £4.95.	1
3	2.43 m	To find the initial height of the oak tree, we need to subtract the growth from the final height. The oak tree grew by 1.35 m over the year, and its final height was 3.78 m. Initial height = Final height - Growth Initial height = 3.78 m - 1.35 m = 2.43 m Therefore, when James first bought the oak tree, its height was 2.43 m.	1
4	12 miles	Liam cycles 3.6 miles from his house to the guitar lesson location. The distance from the guitar lesson location to the park is two-thirds of 3.6 miles: 2/3 × 3.6 = 2.4 miles So, the total distance Liam cycles on Saturday is: 3.6 miles (to guitar lesson) + 2.4 miles (to park) + 2.4 miles (back to guitar lesson location) + 3.6 miles (back home) = 12 miles Therefore, the correct answer is that Liam cycles a total of 12 miles on Saturday.	1

5	90	To find the number of boxes needed, we need to divide the total number of cupcakes by the number of cupcakes that can fit in each box. Total cupcakes: 1 350 Cupcakes per box: 15 1 350 ÷ 15 = 90 Therefore, Sarah will need 90 boxes to pack all the cupcakes for the charity fundraiser.	**1**
6	£3.85	Amelia initially had £5.20 in her piggy bank. She took out £1.35 to buy a chocolate bar and a packet of crisps. To find out how much money Amelia has left, we need to subtract the amount she spent from the amount she initially had: £5.20 - £1.35 = £3.85 Therefore, Amelia has £3.85 left in her piggy bank.	**1**
7	107 metres	To find the height of the real Big Ben, we need to multiply the height of the model by the scale factor. The model is 25 times smaller than the actual Big Ben, so the scale factor is 25. Height of the model clock tower = 4.28 metres Scale factor = 25 Height of the real Big Ben = 4.28 × 25 = 107 metres Therefore, the height of the real Big Ben is 107 metres.	**1**
8	4.5	To calculate the average (mean) number of each bird species Rajesh saw, we need to: 1. Add up the total number of birds: 7 + 4 + 2 + 5 = 18 2. Count the number of different species: robins, sparrows, blackbirds, and finches. There are 4 species in total. 3. Divide the total number of birds by the number of species: 18 ÷ 4 = 4.5 Therefore, the average number of each bird species Rajesh saw on Monday is 4.5.	**1**

9	150 m²	To find the area of the rectangular garden, we need to calculate its length and then multiply it by the given width. The perimeter of a rectangle is given by the formula: P = 2(l + w), where P is the perimeter, l is the length, and w is the width. We know that the perimeter is 50 metres and the width is 10 metres. Let's substitute these values into the formula: 50 = 2(l + 10) 50 = 2l + 20 30 = 2l l = 15 metres Now that we have the length, we can calculate the area using the formula: A = l × w A = 15 × 10 A = 150 m² Therefore, the area of the rectangular garden is 150 square metres.	1
10	£4.50	To find the price of each science book, we need to calculate the total amount spent on the books and then divide it by the number of books purchased. Sarah paid with a £50 note and received £14 in change. To find the total amount spent, we subtract the change from the initial amount: £50 - £14 = £36 So, Sarah spent a total of £36 on the 8 science books. To find the price of each book, we divide the total amount spent by the number of books: £36 ÷ 8 = £4.50 Therefore, each science book costs £4.50.	1