11+ Practice Test Answers

11+ Maths Test 41

Question	Answer	Explanation	Marks
1	0.95 kg	To find the total weight of the cake batter, we need to add the weights of all the ingredients together, including the extra sugar Sarah accidentally added. Flour: 400 grams Sugar: 250 grams + 50 grams (extra) = 300 grams Butter: 150 grams Total weight = 400 + 300 + 150 = 850 grams To convert grams to kilograms, we divide by 1 000: 850 grams = 850 ÷ 1 000 = 0.85 kg Therefore, the total weight of the cake batter is 0.85 kg.	1
2	£900	To calculate the total revenue, we need to find the total number of cupcakes produced and multiply it by the price per cupcake. The bakery produces 50 trays of cupcakes each day, and each tray holds 12 cupcakes. Total cupcakes = Number of trays × Cupcakes per tray Total cupcakes = 50 × 12 = 600 Now, we multiply the total number of cupcakes by the price per cupcake. Total revenue = Total cupcakes × Price per cupcake Total revenue = 600 × £1.50 = £900 Therefore, the bakery can generate a total revenue of £900 by selling all the cupcakes produced in a day.	1
3	270	To find the total number of minutes, we need to convert the hours to minutes and add the remaining minutes. 4 hours = 4 × 60 minutes = 240 minutes The journey takes 4 hours and 30 minutes, so we add the 30 minutes to the 240 minutes: 240 minutes + 30 minutes = 270 minutes Therefore, the train journey from London to Edinburgh takes 270 minutes in total.	1
4	1,328	To find the number of reference books, we need to: 1. Calculate the total number of non-fiction and reference books by subtracting the number of fiction books from the total number of books: 7,583 - 4,927 = 2,656 2. Divide this number by 2, as the non-fiction and reference books are split evenly: 2,656 ÷ 2 = 1,328 Therefore, there are 1,328 reference books in the library.	1

5	12	First, we need to calculate how much orange juice Rajesh pours into the glasses: 3.2 litres × 0.75 (three-quarters) = 2.4 litres Now, we know that each glass holds 200 ml, which is equivalent to 0.2 litres. To find the number of glasses Rajesh fills, we divide the total amount of orange juice he pours by the capacity of each glass: 2.4 litres ÷ 0.2 litres per glass = 12 glasses Therefore, Rajesh fills 12 glasses with the orange juice.	1
6	150	To find the average (mean) number of pages, we need to add up all the pages and divide by the number of books. Total pages: 152 + 148 + 160 + 144 + 156 + 140 = 900 Number of books: 6 Average pages per book: 900 ÷ 6 = 150 Therefore, the average number of pages per book is 150.	1
7	19	To find the number of new books added, let's first calculate the total number of books before the addition. Total books = 12 + 15 + 9 + 18 + 11 = 65 Initially, there were 5 subjects. After adding the new books, there are 6 subjects in total. Let the number of new books added be x. The mean number of books per subject after the addition is 14. So, we can write an equation: (65 + x) ÷ 6 = 14 65 + x = 14 × 6 65 + x = 84 x = 84 - 65 x = 19 Therefore, the librarian added 19 new books.	1
8	300 ml	First, we need to find the total volume of the lemonade mixture: Lemon juice: 1.2 litres = 1 200 ml Water: 6 litres = 6 000 ml Total volume: 1 200 ml + 6 000 ml = 7 200 ml Now, we divide the total volume by the number of glasses to find the amount of lemonade in each glass: 7 200 ml ÷ 24 glasses = 300 ml per glass Therefore, each glass will contain 300 ml of lemonade.	1

9	216	To find the total number of cupcakes, we need to multiply the number of trays by the number of cupcakes in each tray. Number of trays: 12 Number of cupcakes per tray: 18 12 × 18 = 216 Therefore, the bakery has prepared a total of 216 cupcakes.	1
10	15kg	To calculate the amount of flour needed for 1 000 cupcakes: 12 cupcakes require 180g of flour 1 cupcake requires 180g ÷ 12 = 15g of flour 1 000 cupcakes require 15g × 1 000 = 15,000g of flour 15000g is equal to 15kg	1