11+ Practice Test Answers

11+ Maths Test 39

Question	Answer	Explanation	Marks
1	28 glasses	To find the total number of glasses Liam can fill, we need to: 1. Add up the total volume of smoothies made 2. Divide the total volume by the capacity of each glass Step 1: Total volume of smoothies = 3.2 litres (strawberry) + 2.4 litres (banana) + 1.6 litres (mango) = 7.2 litres Step 2: Each glass holds 250 ml, which is 0.25 litres Number of glasses = Total volume ÷ Glass capacity Number of glasses = 7.2 litres ÷ 0.25 litres = 28.8 Since we can't fill a fraction of a glass, we round down to 28 glasses. Therefore, Liam can fill 28 glasses in total with the smoothies he made.	1
2	48 cm	To find the length of the ribbon after Amelia has cut 9 pieces, we need to: 1. Calculate the total length of the 9 pieces cut from the ribbon. 2. Subtract the total length of the cut pieces from the original length of the ribbon. Step 1: Calculate the total length of the 9 pieces cut from the ribbon: Length of each piece = 8 cm Number of pieces cut = 9 Total length of cut pieces = 8 cm × 9 = 72 cm Step 2: Subtract the total length of the cut pieces from the original length of the ribbon: Original length of the ribbon = 120 cm Total length of cut pieces = 72 cm Remaining length of the ribbon = 120 cm - 72 cm = 48 cm Therefore, the length of the ribbon after Amelia has cut 9 pieces is 48 cm.	1
3	74 cm	To find the length of the other side of the rectangle, we need to use the formula Area = Length × Width. Since we know the area is 2 960 cm^2 and one side is 74 cm, we can divide 2 960 by 74 to find the other side. The missing side is therefore 40 cm (2 960 ÷ 74 = 40), which we can verify by multiplying 74 × 40 = 2 960 cm^2.	1
4	3	First, we need to find the total number of items ordered by adding up all the dishes: 3 starters + 4 main courses + 2 side dishes + 3 desserts = 12 items total. Since we know the mean number of items per person was 4, we can divide the total items by the mean to find the number of people. Therefore, 12 items ÷ 4 items per person = 3 friends shared the meal.	1

5	30 boxes	To find the number of boxes needed, we need to divide the total number of cupcakes ordered by the number of cupcakes in each box. The bakery sells cupcakes in boxes of 6, and the order is for 180 cupcakes. 180 ÷ 6 = 30 Therefore, the bakery will need 30 boxes of cupcakes to fulfil the order for the birthday party.	**1**
6	425 g	The recipe requires 350 g of flour, and Amelia accidentally adds an extra 75 g. To find the total amount of flour used, we need to add the original amount and the extra amount: 350 g + 75 g = 425 g Therefore, Amelia used a total of 425 g of flour in her cake.	**1**
7	15	To calculate the mean, we need to add up all the values and then divide by the number of values. The total number of pages Amelia reads over the 6-day period is: 15 + 12 + 18 + 10 + 20 + 15 = 90 pages There are 6 values in total, so to find the mean we divide 90 by 6: 90 ÷ 6 = 15 Therefore, the mean number of pages Amelia reads per day during this period is 15 pages.	**1**
8	54 metres	To find the perimeter of the rectangular garden, we need to calculate the width and then add up all sides. Given: - Length of the garden = 18 metres - Width of the garden = half of the length Step 1: Calculate the width of the garden Width = 1/2 × Length Width = 1/2 × 18 = 9 metres Step 2: Calculate the perimeter by adding all sides Perimeter = 2 × (Length + Width) Perimeter = 2 × (18 + 9) = 2 × 27 = 54 metres Therefore, the perimeter of the rectangular garden is 54 metres.	**1**
9	12:00 pm	Liam's train departs at 9:48 am and the journey takes 2 hours and 12 minutes. First, let's add 2 hours to 9:48 am: 9:48 am + 2 hours = 11:48 am Now, we need to add 12 minutes to 11:48 am: 11:48 am + 12 minutes = 12:00 pm Therefore, Liam will arrive in London at 12:00 pm.	**1**

10	Kite	In a quadrilateral, the sum of all four angles is always 360°. Given that two angles measure 65° each, the sum of the remaining two angles must be: 360° - (65° + 65°) = 360° - 130° = 230° Since the remaining two angles are equal, each of them measures: 230° ÷ 2 = 115° A kite is a quadrilateral with two pairs of equal adjacent sides and two pairs of equal angles. In this case, the quadrilateral has two pairs of equal angles (65° and 115°), making it a kite.	1