11+ Practice Test Answers

11+ Maths Test 2

Question	Answer	Explanation	Marks
1	450g	To find the amount of flour needed for 30 cupcakes, we need to set up a proportion: 12 cupcakes : 180g of flour = 30 cupcakes : x grams of flour Cross multiply to solve for x: 12x = 180 × 30 12x = 5 400 x = 5 400 ÷ 12 x = 450 Therefore, Sarah will need 450g of flour to make 30 cupcakes.	1
2	30 g	To find the average (mean) amount of sugar in each cupcake, we need to divide the total amount of sugar by the number of cupcakes. Total sugar: 360 g Number of cupcakes: 12 Average sugar per cupcake = 360 g ÷ 12 = 30 g Therefore, the average amount of sugar in each cupcake will be 30 g.	1
3	5 400	To find the number of sheets each student will receive, we need to divide the total number of sheets by the number of students. 2 160 000 ÷ 400 = 5 400 Step 1: Divide 2 160 000 by 400. 2 160 000 ÷ 400 = 5 400 Therefore, each student will receive 5 400 sheets of paper.	1
4	846	To solve this problem we simply need to calculate how many boxes the bakery can fill with 84,600 loaves if each box can hold 100 loaves: 84,600 ÷ 100 = 846 Hence, they can fill 846 boxes of 100 loaves.	1

5	3 months	To find out how many months it will take Amelia to save enough money, we need to calculate the remaining amount she needs to save and divide it by her monthly savings. The bicycle costs £180, and Amelia already has £60 saved. Remaining amount to save = £180 - £60 = £120 Amelia plans to save an additional £40 per month. Months needed to save the remaining amount = £120 ÷ £40 per month = 3 months Therefore, it will take Amelia 3 months to save enough money to buy the bicycle.	**1**
6	10	To find the number of erasers Sarah puts in each bag, we need to substitute the known values into the given formula and solve for b. Given: - The total cost of items in each bag is £31, so $C = 31$ - Sarah puts 8 pencils in each bag, so $a = 8$ Substituting these values into the formula: $£31 = 2(8) + 1.5b$ $£31 = £16 + 1.5b$ Subtracting £16 from both sides: $£15 = 1.5b$ Dividing both sides by 1.5: $b = £15 \div 1.5$ $b = 10$ Therefore, Sarah puts 10 erasers in each gift bag.	**1**
7	19:32	To find out when Sarah arrives home, we need to add up the time taken for each part of her journey: 1. Sarah finishes her shift at 18:20 2. Walking to the bus stop: 12 minutes 18:20 + 12 minutes = 18:32 3. Waiting at the bus stop: 17 minutes 18:32 + 17 minutes = 18:49 4. Bus journey: 35 minutes 18:49 + 35 minutes = 19:24 5. Walking from the bus stop to her home: 8 minutes 19:24 + 8 minutes = 19:32 Therefore, Sarah arrives home at 19:32.	**1**

8	1	The resulting shape has only one line of symmetry. A regular pentagon has 5 lines of symmetry, and an equilateral triangle has 3 lines of symmetry. However, when the two shapes are placed together as described, most of these lines of symmetry are lost. The only line of symmetry that remains is the vertical line that passes through the point where the two shapes touch. This line divides the shape into two equal halves that are mirror images of each other. Therefore, the correct answer is that the resulting shape has 1 line of symmetry.	**1**
9	30 litres	To find the volume of water the fish tank can hold, we need to multiply the internal dimensions of the tank. Volume of water = Internal length × Internal width × Internal height Volume of water = 40 cm × 25 cm × 30 cm = 30,000 cm^3 To convert cm^3 to litres, divide by 1,000: 30,000 cm^3 ÷ 1,000 = 30 litres	**1**
10	Rectangle	The garden has two pairs of equal sides: 10 metres and 15 metres. This means that of the shapes listed, it can only be a rectangle. It cannot be a circle as there are four sides and it cannot be a rhombus or a square as all four sides are not equal.	**1**