11+ Practice Test Answers

11+ Maths Test 35

Question	Answer	Explanation	Marks
1	11:05 am	To find out when Sarah should start making the icing, we need to work backwards from when the cake will be ready. Sarah starts mixing the ingredients at 10:15 am and it takes her 25 minutes to prepare the batter. So, she will finish preparing the batter at 10:40 am (10:15 am + 25 minutes). The cake needs to bake in the oven for 40 minutes. Therefore, the cake will be ready at 11:20 am (10:40 am + 40 minutes). The icing takes 15 minutes to make and Sarah wants it to be ready at the same time as the cake. So, she should start making the icing 15 minutes before the cake is ready. Therefore, Sarah should start making the icing at 11:05 am (11:20 am - 15 minutes).	1
2	0.75 mm	To find the diameter of a human hair, we need to multiply the diameter of a red blood cell by 100. Diameter of a red blood cell = 0.75 mm Diameter of a human hair = 0.75 mm × 100 0.75 × 100 = 0.75 Therefore, the diameter of a human hair is 0.75 mm.	1
3	6 cm	To find the minimum depth of the fish tank, we need to use the formula for the volume of a rectangular prism: Volume = length × width × depth We know the volume is 3,600 cm^3, the length is 30 cm, and the width is 20 cm. Let's substitute these values into the formula: 3,600 = 30 × 20 × depth To solve for depth, we divide both sides by (30 × 20): depth = 3,600 ÷ (30 × 20) depth = 3,600 ÷ 600 depth = 6 Therefore, the minimum depth of the fish tank is 6 cm.	1

4	216	To find the total number of pages read, we need to calculate the number of pages read by each person and then add them together. Alice read 24 pages. Bob read 3 times as many pages as Alice: 3 × 24 = 72 pages. Charlie read 5 times as many pages as Alice: 5 × 24 = 120 pages. Total pages read = Alice's pages + Bob's pages + Charlie's pages Total pages read = 24 + 72 + 120 = 216 pages. Therefore, Alice, Bob and Charlie read a total of 216 pages altogether.	**1**
5	23 cm	Liam starts with a piece of wood that is 150 cm long. He saws off 12 cm, so the remaining length is: 150 cm - 12 cm = 138 cm. He then cuts this remaining 138 cm into 6 equal lengths. To find the length of each piece, we divide the total length by the number of pieces: 138 cm ÷ 6 = 23 cm. Therefore, each of the 6 equal lengths of wood is 23 cm long.	**1**
6	9	To find the number of students who play the trumpet, we need to subtract the number of students who play the other instruments from the total number of students in the orchestra. Total students: 35 Students playing violin: 12 Students playing flute: 8 Students playing cello: 6 35 - (12 + 8 + 6) = 35 - 26 = 9 Therefore, 9 students play the trumpet in the school orchestra.	**1**
7	30 days	To find out how many days one container of orange juice will last, we need to divide the total volume of the container by the amount Amir uses each day. The container holds 2.4 litres of juice. We need to convert this to millilitres: 2.4 litres = 2,400 millilitres (ml) Amir uses 80 ml of juice each day. To calculate the number of days the juice will last, we divide the total volume by the daily usage: 2,400 ml ÷ 80 ml per day = 30 days Therefore, one 2.4 litre container of orange juice will last Amir for 30 days.	**1**
8	630 cm	To find the total length of the model railway track, we need to multiply the number of track pieces by the length of each piece. Number of track pieces: 35 Length of each piece: 18 cm 35 × 18 cm = 630 cm Therefore, the total length of Liam's model railway track is 630 cm.	**1**

9	£144	The bakery sells 8 cupcakes for £12. To find the cost of 96 cupcakes, we need to calculate how many boxes of 8 cupcakes Amelia needs to order and then multiply that by the cost per box. 96 cupcakes ÷ 8 cupcakes per box = 12 boxes 12 boxes × £12 per box = £144 Therefore, Amelia spends £144 on the cupcakes for her birthday party.	**1**
10	54	To find the missing number, we need to determine what number multiplied by 100 equals 5,400. We can do this by dividing 5,400 by 100: 5,400 ÷ 100 = 54 Therefore, the missing number is 54, as 100 × 54 = 5,400.	**1**