11+ Practice Test Answers

11+ Maths Test 24

Question	Answer	Explanation	Marks
1	3 900 g	To find the total weight of 50 bags of marbles, we first need to calculate the weight of one bag. One bag contains 15 marbles, and each marble weighs 5.2 g. Weight of one bag = 15 × 5.2 g = 78 g Now, we can calculate the weight of 50 bags: Weight of 50 bags = 50 × 78 g = 3 900 g Therefore, 50 bags of marbles would weigh 3 900 g in total, ignoring the weight of the bags themselves.	1
2	$2.50L + 1.20B$	To calculate the total cost of an order containing L loaves of bread and B baguettes, we need to multiply the number of each item by its respective price and then add the results together. The cost of the loaves of bread is calculated by multiplying the number of loaves (L) by the price per loaf (£2.50): $2.50 \times L = 2.50L$ The cost of the baguettes is calculated by multiplying the number of baguettes (B) by the price per baguette (£1.20): $1.20 \times B = 1.20B$ To find the total cost, we add the cost of the loaves and the cost of the baguettes: $2.50L + 1.20B$ Therefore, the correct expression to calculate the total cost of the order is $2.50L + 1.20B$.	1
3	45 minutes	To find out how long Sarah spends preparing each type of cookie, we need to divide the total time by the number of cookie types. Total time = 3 hours and 45 minutes = 3 × 60 minutes + 45 minutes = 225 minutes Number of cookie types = 5 Time spent on each type = 225 minutes ÷ 5 = 45 minutes Therefore, Sarah spends 45 minutes preparing each type of cookie for the school fundraiser.	1
4	9	To find the number of slices, we need to calculate how many 40° angles can fit in a full circle (360°). The calculation is as follows: 360° ÷ 40° = 9 Therefore, if each slice has an angle of 40°, the circular cake will be divided into 9 equal slices.	1

5	Equilateral triangle	A regular polygon is a polygon that has all sides of equal length and all angles of equal measure. An equilateral triangle has all sides of equal length and all angles measuring 60°, making it a regular polygon. An isosceles triangle has two sides of equal length and two angles of equal measure, but not all sides and angles are equal, so it is not a regular polygon. A scalene triangle has no sides of equal length and no angles of equal measure, so it is not a regular polygon. A rectangle has opposite sides of equal length and all angles measuring 90°, but adjacent sides are not equal in length, so it is not a regular polygon. Therefore, the equilateral triangle is the only regular polygon among the given options.	**1**
6	195 seconds	To convert minutes to seconds, we need to multiply the number of minutes by 60 (as there are 60 seconds in a minute). Amir practised for three and a quarter minutes, which can be written as 3.25 minutes (a quarter is 0.25). 3.25 × 60 = 195 Therefore, Amir practised his guitar for 195 seconds.	**1**
7	The combined length of string q and string r is greater than 10 cm.	In a straight line, the sum of the lengths of the three strings must equal the total length of the line. If string *p* is less than 10 cm, then the remaining length of the line must be greater than 10 cm, as the total length of the line is greater than the length of string *p*. Therefore, the combined length of string *q* and string *r* must be greater than 10 cm to make up the remaining length of the line. The other statements cannot be determined with certainty based on the given information.	**1**
8	15 hours and 30 minutes	To calculate the total time Sarah spends swimming in August, we need to multiply the daily swimming time by the number of days in August. Daily swimming time: 30 minutes Number of days in August: 31 Total swimming time = 30 minutes × 31 days 30 minutes = 0.5 hours 0.5 hours × 31 days = 15.5 hours 15.5 hours = 15 hours and 30 minutes Therefore, Sarah spends a total of 15 hours and 30 minutes swimming over the entire month of August.	**1**

9	180 m²	To find the area of the rectangular garden, we need to calculate the length first. 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 54 metres and the width is 12 metres. Substituting these values into the formula: 54 = 2(l + 12) 54 = 2l + 24 30 = 2l l = 15 metres Now that we have the length, we can calculate the area using the formula: A = l × w, where A is the area. A = 15 × 12 = 180 m² Therefore, the area of the rectangular garden is 180 square metres.	1
10	1,855 g	To find the total weight of the items in Amelia's suitcase, we need to add the weights of all the individual items together. Dress: 350 g Shoes: 820 g Toiletry bag: 475 g Book: 210 g 350 g + 820 g + 475 g + 210 g = 1,855 g Therefore, the total weight of the items in Amelia's suitcase is 1,855 g.	1