11+ Practice Test Answers
11+ Maths Test 11

Question	Answer	Explanation	Marks
1	Triangular prism	To determine the correct answer, we need to consider the properties of each shape: 1. A triangular prism has 5 faces (2 triangular bases and 3 rectangular faces), 9 edges, and 6 vertices (3 on each triangular base). 2. A rectangular pyramid has 5 faces (1 rectangular base and 4 triangular faces), 8 edges, and 5 vertices. 3. A pentagonal prism has 7 faces (2 pentagonal bases and 5 rectangular faces), 15 edges, and 10 vertices. 4. A hexagonal pyramid has 7 faces (1 hexagonal base and 6 triangular faces), 12 edges, and 7 vertices. The solid object described in the question has 5 faces, 9 edges, and 6 vertices, which matches the properties of a triangular prism. Therefore, the correct answer is 'Triangular prism'.	1
2	18	To find the number of teachers needed, we need to divide the total number of students by the number of students in each group. Total number of students: 432 Number of students per group: 24 $432 \div 24 = 18$ Therefore, 18 teachers will be needed for the trip to the zoo.	1
3	11	To find the minimum number of trips Liam's dad needs to make, we need to divide the total number of paving slabs by the number of slabs he can carry in each trip. Total paving slabs: 77 Paving slabs per trip: 7 $77 \div 7 = 11$ remainder 0 Since there is no remainder, Liam's dad will need to make 11 trips to transport all the paving slabs. Therefore, the minimum number of trips required is 11.	1

4	A square	To determine the type of quadrilateral Liam has plotted, we need to analyse the properties of the shape based on the given coordinates. First, let's calculate the lengths of the sides: Horizontal sides: $\lvert 2 - (-5)\rvert$ = 7 units Vertical sides: $\lvert 5 - (-2)\rvert$ = 7 units All four sides are equal in length, which is a property of both squares and rhombuses. Next, let's check if the sides are parallel by comparing the slopes of opposite sides: Slope of top and bottom sides: (5 - 5) / (2 - (-5)) = 0 Slope of left and right sides: (5 - (-2)) / (-5 - (-5)) = undefined (vertical lines) The opposite sides are parallel, which is a property of squares, rhombuses, and parallelograms. Finally, let's check if the angles are right angles by calculating the slopes of adjacent sides: Slope of top and right sides: (5 - (-2)) / (2 - 2) = undefined (vertical line) Slope of right and bottom sides: (-2 - (-2)) / (2 - (-5)) = 0 The slopes of adjacent sides are perpendicular (one is 0 and the other is undefined), indicating that the angles are right angles. Therefore, the quadrilateral Liam has plotted is a square, as it has four equal sides, opposite sides are parallel, and all angles are right angles.	1
5	£3.25	To find out how much the toy car cost, we need to calculate the difference between the amount of money Tom had before and after buying the toy. Amount before: £5.20 Amount after: £1.95 £5.20 - £1.95 = £3.25 Therefore, the toy car cost £3.25.	1
6	$7x + 5$	Let's break down the problem and solve it step by step: 1. Amelia has £x in her piggy bank. 2. Oliver has three times as much money as Amelia, which means he has 3 × x = $3x$ pounds. 3. Sophia has £5 more than Oliver. Since Oliver has $3x$ pounds, Sophia has $3x$ + 5 pounds. 4. To find the total amount of money the three children have, we add their individual amounts: Amelia's money + Oliver's money + Sophia's money = $x + 3x + (3x + 5)$ = $x + 3x + 3x + 5$ = $7x + 5$ Therefore, the correct expression that represents the total amount of money the three children have is $7x + 5$.	1

7	Cube	A cube is a three-dimensional shape that has six square faces of equal size.	1
		Each face of a cube is a square, meaning all sides of each face are equal in length and all angles are 90 degrees.	
		A rectangular prism has six rectangular faces, but they are not necessarily all equal in size.	
		A triangular prism has two triangular bases and three rectangular faces, while a square-based pyramid has one square base and four triangular faces.	
		Therefore, the correct answer is a cube.	
8	13	To find the number of party bags Harry filled, we need to calculate how many groups of 5 sweets he could make from the total number of sweets, excluding the leftover sweets.	1
		Total sweets: 75	
		Leftover sweets: 10	
		Sweets used for party bags: 75 - 10 = 65	
		Each party bag contains 5 sweets, so we need to divide the number of sweets used by 5.	
		65 ÷ 5 = 13	
		Therefore, Harry filled 13 party bags with sweets.	
9	£1 892.50	To find the total amount of money Liam has by the end of June, we need to:	1
		1. Calculate the total amount he earned from April to June (before the bonus).	
		2. Determine the bonus amount based on his total earnings.	
		3. Add the bonus to his total earnings.	
		Liam's earnings from April to June:	
		April: £850 May: £420 June: £600	
		Total earnings = £850 + £420 + £600 = £1 870	
		Bonus calculation:	
		Liam receives £7.50 for every £500 he earned.	
		£1 870 ÷ £500 = 3.74	
		Since he only earns a bonus for each complete £500 he earns, Liam will receive a bonus for 3 × £500 = £1 500.	
		Bonus = 3 × £7.50 = £22.50	
		Total money by the end of June:	
		Total = Earnings + Bonus	
		Total = £1 870 + £22.50 = £1 892.50	
		Therefore, Liam will have a total of £1 892.50 by the end of June, including his bonus.	

10	18 cookies	To find out how many more cookies Liam needs to bake, we need to:	1
		1. Calculate the total number of cookies he has already made by adding the chocolate chip and oatmeal raisin cookies:	
		24 + 18 = 42 cookies	
		2. Subtract the number of cookies he has already made from the total number of cookies he needs:	
		60 - 42 = 18 cookies	
		Therefore, Liam needs to bake 18 more cookies to reach his goal of 60 cookies for the school fundraiser.	