

11+ Practice Test Answers

11+ Maths Test 37

Question	Answer	Explanation	Marks
1	45°	<p>An acute angle is an angle that measures less than 90°.</p> <p>Since angle x is described as an acute angle, it must be smaller than 90°.</p> <p>Among the given options, only 45° is an acute angle, as it is less than 90°.</p> <p>Therefore, the correct answer is 45°.</p>	1
2	48	<p>To find the number of trays needed, we need to divide the total number of cupcakes (864) by the number of cupcakes each tray can hold (18). Calculating $864 \div 18 = 48$.</p> <p>Therefore, the bakery will need 48 trays to hold all 864 cupcakes. This will use all the trays fully with no leftover cupcakes.</p>	1
3	190g flour to 125g sugar	<p>To determine which recipe uses the least amount of flour relative to the amount of sugar, we need to calculate the ratio of flour to sugar for each recipe.</p> <p>Recipe 1: 475g flour / 250g sugar = 1.9 Recipe 2: 380g flour / 200g sugar = 1.9 Recipe 3: 285g flour / 150g sugar = 1.9 Recipe 4: 190g flour / 125g sugar = 1.52</p> <p>The recipe with the smallest ratio of flour to sugar will require the least amount of flour relative to the amount of sugar used.</p> <p>Recipe 4 has the smallest ratio at 1.52, meaning it uses the least amount of flour relative to the amount of sugar compared to the other recipes.</p> <p>Therefore, the correct answer is 190g flour to 125g sugar.</p>	1
4	£7.50	<p>To find the cost per student, we need to follow these steps:</p> <p>1. Calculate the total number of students that can be accommodated:</p> <p>Number of buses \times Students per bus = $12 \times 40 = 480$ students</p> <p>2. Calculate the cost per student:</p> <p>Total cost \div Total number of students = $\pounds 3\ 600 \div 480 = \pounds 7.50$ per student</p> <p>Therefore, the school needs to charge each student £7.50 to cover the cost of transportation.</p>	1
5	6.5 km	<p>To find the mean distance walked by the four friends, we need to add up all the distances and divide by the number of friends.</p> <p>Total distance = 5 km + 8 km + 6 km + 7 km = 26 km</p> <p>Number of friends = 4</p> <p>Mean distance = Total distance \div Number of friends</p> <p>Mean distance = 26 km \div 4 = 6.5 km</p> <p>Therefore, the mean distance walked by the four friends is 6.5 km.</p>	1

6	$50 + 2r$	<p>To calculate James' total earnings, we need to add his base rate of £50 to the additional amount he earns for each revision.</p> <p>The additional amount is calculated by multiplying the number of revisions (r) by the rate per revision (£2).</p> <p>Therefore, the correct expression is:</p> <p>Base rate + (Number of revisions \times Rate per revision)</p> <p>Which translates to:</p> $50 + 2r$ <p>For example, if James makes 5 revisions, his total earnings would be:</p> $50 + 2(5) = 50 + 10 = \text{£}60$	1
7	obtuse	<p>In a triangle, the sum of all three angles is always 180°.</p> <p>If one of the angles is 110°, which is greater than 90°, then the triangle must be obtuse.</p> <p>An acute triangle has all angles less than 90°, a right-angled triangle has one 90° angle, and an equilateral triangle has three equal angles, each measuring 60°.</p> <p>Therefore, the correct answer is that the triangle is obtuse.</p>	1
8	8 th June	<p>To find the date closest to 15th July, we need to calculate the number of days between each given date and 15th July.</p> <p>8th June to 15th July: 37 days</p> <p>22nd August to 15th July: 38 days</p> <p>30th April to 15th July: 76 days</p> <p>2nd October to 15th July: 79 days (counting forward from 15th July to 2nd October)</p> <p>The date with the smallest number of days difference from 15th July is the closest date. In this case, 8th June is only 37 days away. Therefore, the closest date to 15th July is 8th June.</p>	1
9	4	<p>An octahedron has 8 faces in total.</p> <p>Therefore, if half of the faces are blue, then the remaining 4 faces must all be blue.</p>	1

10

Butter

To find the second smallest amount, we need to convert all the quantities to the same unit. Let's convert everything to grams (g).

1.2 kg of flour = 1 200 g

0.75 kg of sugar = 750 g

900 g of butter is already in grams

1 500 g of icing sugar is already in grams

Now, ordering from smallest to largest:

Sugar: 750 g

Butter: 900 g

Flour: 1 200 g

Icing sugar: 1 500 g

Therefore, butter is the ingredient Mrs Johnson has the second smallest amount of.

1