

11+ Practice Test Answers

11+ Maths Test 40

Question	Answer	Explanation	Marks
1	36 metres	<p>The width of a circle at its widest point is known as the diameter.</p> <p>The diameter of a circle is always twice the length of the radius.</p> <p>In this case, the radius of the pond is 18 metres.</p> <p>Therefore, the diameter (width at the widest point) is:</p> $18 \text{ metres} \times 2 = 36 \text{ metres}$ <p>So, the correct answer is 36 metres.</p>	1
2	1080	<p>To find the total amount of chocolate chips needed, we need to multiply the number of cookies by the amount of chocolate chips required for each cookie.</p> <p>First, let's calculate the number of cookies in the batch:</p> $7.2 \text{ dozen} = 7.2 \times 12 = 86.4 \text{ cookies}$ <p>Now, we can multiply the number of cookies by the amount of chocolate chips per cookie:</p> $86.4 \text{ cookies} \times 12.5 \text{ grams per cookie} = 1080 \text{ grams}$ <p>Therefore, the bakery will need a total of 1080 grams of chocolate chips to make the large batch of cookies.</p>	1
3	12	<p>To find the number of boxes needed, we need to divide the total number of eggs by the number of eggs each box can hold.</p> <p>Total eggs: 144 Eggs per box: 12</p> $\text{Number of boxes} = 144 \div 12 = 12$ <p>Therefore, the farmer will need 12 boxes to pack all the eggs.</p>	1
4	70	<p>To find the number of apples in each crate, we need to divide the total number of apples by the number of crates.</p> $630 \text{ apples} \div 9 \text{ crates} = 70 \text{ apples per crate}$ <p>Therefore, if the farmer divides the 630 apples equally among the 9 crates, each crate will contain 70 apples.</p>	1

5	11:12 am	<p>To find the time James finished gardening, we need to add the time he spent on each task to his start time.</p> <p>James spent:</p> <p>35 minutes mowing the lawn 48 minutes trimming the hedges 29 minutes watering the plants</p> <p>Total time spent gardening: $35 + 48 + 29 = 112$ minutes</p> <p>112 minutes is equal to 1 hour and 52 minutes (60 minutes in an hour, so $112 - 60 = 52$).</p> <p>James started gardening at 9:20 am, so we add 1 hour and 52 minutes to that time:</p> <p>9:20 am + 1 hour = 10:20 am 10:20 am + 52 minutes = 11:12 am</p> <p>Therefore, James finished gardening at 11:12 am.</p>	1
6	3.05 litres	<p>First, we need to convert the units so they are the same. The bottle contains 3.5 litres, and Rajesh pours out 450 ml.</p> <p>1 litre = 1000 ml, so 3.5 litres = 3 500 ml</p> <p>Now we can subtract the amount poured out from the total:</p> <p>$3\ 500\ \text{ml} - 450\ \text{ml} = 3\ 050\ \text{ml}$</p> <p>Converting back to litres: $3\ 050\ \text{ml} = 3.05$ litres</p> <p>Therefore, the amount of orange juice left in the bottle is 3.05 litres.</p>	1
7	1	<p>Let's call the mystery number 'x'.</p> <p>Samantha first multiplies 7.2 496 by x: $7.2\ 496 \times x$</p> <p>She then divides the result by x: $(7.2\ 496 \times x) \div x$</p> <p>We can simplify this expression using the fact that multiplying and then dividing by the same number cancels out:</p> <p>$(7.2\ 496 \times x) \div x = 7.2\ 496$</p> <p>So, for Samantha's calculation to work, the mystery number must be a value that, when multiplied and divided, leaves the original number unchanged.</p> <p>The only number that satisfies this condition is 1, because any number multiplied or divided by 1 remains the same.</p> <p>Therefore, the mystery number Samantha used must be 1.</p>	1

8	A square	<p>Amelia is using a square for the company logo.</p> <p>A square is a quadrilateral (a four-sided polygon) that has the following properties:</p> <ol style="list-style-type: none"> 1. All four sides are equal in length. 2. All four angles are right angles (90 degrees). <p>While a rectangle, rhombus, and parallelogram are also quadrilaterals, they do not have both of these properties simultaneously.</p> <p>A rectangle has four right angles but not all sides are equal, a rhombus has four equal sides but not all angles are 90 degrees, and a parallelogram has neither four equal sides nor four right angles.</p> <p>Therefore, the only quadrilateral that fits the description of having four equal sides and four right angles is a square.</p>	1
9	£9.50	<p>To calculate the average (mean) daily earnings, we need to:</p> <ol style="list-style-type: none"> 1. Calculate the total earnings for the week 2. Divide the total earnings by the number of days worked <p>Weekday earnings: $£8.50 \times 5 \text{ days} = £42.50$</p> <p>Weekend earnings: $£12.00 \times 2 \text{ days} = £24.00$</p> <p>Total earnings: $£42.50 + £24.00 = £66.50$</p> <p>Average daily earnings: $£66.50 \div 7 \text{ days} = £9.50$</p> <p>Therefore, James' average daily earnings for working every day of the week is £9.50.</p>	1
10	1.5 kg	<p>To find the weight of the water, we need to subtract the weight of the bucket and sand from the total weight of the full bucket.</p> <p>Weight of full bucket = 3.6 kg Weight of bucket and sand = 2.1 kg</p> <p>$3.6 \text{ kg} - 2.1 \text{ kg} = 1.5 \text{ kg}$</p> <p>Therefore, the weight of the water that was poured out is 1.5 kg.</p>	1