11+ Practice Test Answers

11+ Maths Test 46

Question	Answer	Explanation	Marks
1	Square	A regular shape with four lines of symmetry is a square. A square has four equal sides and four right angles. It has two lines of symmetry that pass through the centre vertically and horizontally, and two diagonal lines of symmetry that pass through opposite corners. Therefore, a square has a total of four lines of symmetry.	1
2	£3.76	To find out how much change Amir received, we need to: 1. Add up the cost of the items he bought: £12.99 (shirt) + £24.50 (jeans) + £8.75 (belt) = £46.24 2. Subtract the total cost from the amount he paid (£50): £50 - £46.24 = £3.76 Therefore, Amir received £3.76 in change.	1
3	57 hours	To calculate the total number of hours Amelia has to complete the hiking challenge, we need to find the time difference between the start and end times. The event starts at 7 am on Saturday and ends at 4 pm on Monday. From Saturday 7 am to Sunday 7 am: 24 hours From Sunday 7 am to Monday 7 am: 24 hours From Monday 7 am to Monday 4 pm: 9 hours Total hours = 24 + 24 + 9 = 57 hours Therefore, Amelia has 57 hours to finish the 3-day hiking challenge.	1
4	15.5 miles	To convert kilometres to miles, we need to use the formula $m = 0.62k$, where m is the number of miles and k is the number of kilometres. In this case, we have 25 kilometres, so we substitute k with 25: $m = 0.62 \times 25$ $m = 15.5$ Therefore, 25 kilometres is equal to 15.5 miles.	1

5	A rectangle	To determine the shape of Amelia's garden plot, we need to analyse the given coordinates. The x-coordinates of the corners are 3, -3, -3, and 3. This means the plot has a width of 6 units (from -3 to 3). The y-coordinates of the corners are 3, 3, -1, and -1. This means the plot has a height of 4 units (from -1 to 3). Since the opposite sides have equal lengths (6 units for the width and 4 units for the height) and the corners form right angles (90 degrees), the shape is a rectangle. A square would require all sides to have equal length, which is not the case here. Parallelograms and trapeziums have parallel sides, but their corners do not form right angles. Therefore, the correct answer is that Amelia's garden plot will be a rectangle.	1
6	12 kilometres	To find the average (mean) distance Liam runs each day, we need to divide the total distance by the number of days. Total distance: 48 kilometres Number of days: 4 Average distance per day = 48 kilometres ÷ 4 = 12 kilometres Therefore, the average distance Liam runs each day during this period is 12 kilometres.	1
7	£80	To find the change Tom will receive, we first need to calculate the total cost of the tickets. Each ticket costs £80, and Tom is buying 4 tickets. Total cost = £80 × 4 = £320 Tom pays with £400, so to find the change, we subtract the total cost from the amount he pays. Change = £400 - £320 = £80 Therefore, Tom will receive £80 in change.	1
8	1 hour and 1 minute	To find the total time Amelia spent making the cake, we need to add the time she spent mixing the ingredients and the time she spent waiting for the cake to bake. Mixing ingredients: 25 minutes and 40 seconds Baking time: 35 minutes and 20 seconds First, let's convert the times to seconds: Mixing ingredients: (25 × 60) + 40 = 1,540 seconds Baking time: (35 × 60) + 20 = 2,120 seconds Now, add the times together: 1,540 + 2,120 = 3,660 seconds Finally, convert the total time back to minutes and seconds: 3,660 seconds = 61 minutes (60 minutes + 1 minute) 61 minutes = 1 hour and 1 minute Therefore, Amelia spent a total of 1 hour and 1 minute making the cake.	1

9	9 + 2y	The correct answer is 9 + 2y. The cost of a box of cupcakes is fixed at £9, regardless of how many individual cupcakes are purchased. Each individual cupcake costs £2. To find the total cost, we need to add the cost of the box (£9) to the cost of the individual cupcakes. The number of individual cupcakes is represented by *y*, and each one costs £2. Therefore, the cost of the individual cupcakes is 2y. So, the total cost is the sum of the cost of the box and the cost of the individual cupcakes: 9 + 2y.	1
10	8	First, we need to convert the weights to the same unit. Liam has 3.2 kg of strawberries, which is equal to 3,200 g (3.2 × 1,000 = 3,200). Now, we can add the weights of the strawberries and blueberries together: 3,200 g + 800 g = 4,000 g. Each smoothie pack will contain 500 g of mixed berries. To find out how many packs Liam can make, we divide the total weight of berries by the weight of each pack: 4,000 ÷ 500 = 8. Therefore, Liam can make 8 smoothie packs with the berries he has.	1