11+ Practice Test Answers
11+ Maths Test 7

Question	Answer	Explanation	Marks
1	576	To find the total number of students the school can accommodate, we need to multiply the number of classrooms by the number of students each classroom can hold. Number of classrooms: 18 Number of students per classroom: 32 18 × 32 = 576 Therefore, the school can accommodate a total of 576 students.	1
2	6 cm	To find the height of the rectangular fish tank, we need to use the formula for the volume of a cuboid: Volume = length × width × height We know that: Volume = 3,600 cm^3 Length = 30 cm Width = 20 cm Let's substitute these values into the formula: 3,600 = 30 × 20 × height To solve for the height, we divide both sides by (30 × 20): 3,600 ÷ (30 × 20) = height 3,600 ÷ 600 = height 6 = height Therefore, the height of the fish tank is 6 cm.	1
3	36	To determine the maximum number of photos that can fit on the cardboard, we need to calculate how many photos can fit in each row and column. The cardboard is 24 cm tall, and each photo is 6 cm in height. So, the number of photos that can fit vertically is: 24 cm ÷ 6 cm = 4 photos. The cardboard is 36 cm wide, and each photo is 4 cm in width. So, the number of photos that can fit horizontally is: 36 cm ÷ 4 cm = 9 photos. To find the total number of photos that can fit on the cardboard, we multiply the number of photos in each row by the number of photos in each column: 4 × 9 = 36 photos. Therefore, the maximum number of photos that Amelia can fit on the cardboard is 36.	1
4	All the above	A regular pentagon has 5 sides and 5 lines of symmetry, a regular octagon has 8 sides and 8 lines of symmetry, and a regular heptagon has 7 sides and 7 lines of symmetry.	1

5	36°	To find the value of *x*, we need to use the fact that the angles in a circle add up to 360°. Let's add up the angles of all the slices: Smallest slice: *x* Second smallest slice: 2*x* Second largest slice: 3*x* Largest slice: 4*x* Total angle: $x + 2x + 3x + 4x = 10x$ Since the total angle must equal 360°, we can set up an equation: $10x = 360°$ Dividing both sides by 10, we get: $x = 36°$ Therefore, the smallest slice has an angle of 36°, the second smallest slice has an angle of 72°, the second largest slice has an angle of 108°, and the largest slice has an angle of 144°.	1
6	1,500 square metres	To find the area of the rectangular field, we need to use the formula $A = lw$, where *A* is the area, *l* is the length, and *w* is the width. Given: Length (*l*) = 50 metres Width (*w*) = 30 metres Calculation: $A = lw$ $A = 50 \times 30$ $A = 1,500$ Therefore, the area of the rectangular field with a length of 50 metres and a width of 30 metres is 1,500 square metres.	1
7	15:15	The original departure time is 14:40 in the 24-hour clock format. The train is delayed by 35 minutes. To calculate the new departure time, we need to add 35 minutes to 14:40. 40 minutes + 35 minutes = 75 minutes 75 minutes is equal to 1 hour and 15 minutes. Therefore, the new departure time will be 14:40 + 1 hour and 15 minutes. 14:40 + 1 hour = 15:40 15:40 - 25 minutes (to account for the remaining 15 minutes) = 15:15 So, the train will depart at 15:15 in the 24-hour clock format.	1
8	25 200 seconds	To convert minutes to seconds, we need to multiply the number of minutes by 60 (as there are 60 seconds in a minute). Samantha practiced for 420 minutes. 420 × 60 = 25,200 Therefore, Samantha has spent 25,200 seconds practicing her violin this week.	1

9	70 cm	The diameter of a circle is twice the length of its radius. Given that the radius of the mirror is 35 cm, we can calculate the diameter as follows: Diameter = 2 × Radius Diameter = 2 × 35 cm Diameter = 70 cm Therefore, the diameter of the circular mirror is 70 cm.	1
10	22	To find the value of y when $x = 4$, we need to substitute the value of x into the equation $y = 5x + 2$. Step 1: Substitute x with 4 in the equation. $y = 5(4) + 2$ Step 2: Multiply 5 by 4. $y = 20 + 2$ Step 3: Add 20 and 2. $y = 22$ Therefore, when $x = 4$, the value of y is 22.	1