11+ Practice Test Answers

11+ Maths Test 19

Question	Answer	Explanation	Marks
1	30 ml	To find the average (mean) amount of milk used per scone, we need to divide the total amount of milk used by the number of scones being baked. Total milk used: 360 ml Number of scones: 12 Average milk per scone = 360 ml ÷ 12 = 30 ml per scone Therefore, the average amount of milk used per scone is 30 ml.	1
2	2 916	To find the number of houses in Millfield in 2 020, we need to multiply the number of houses in 1 995 by 6. Number of houses in 1 995 = 486 486 × 6 = 2,916 Therefore, in 2 020, there were 2,916 houses in Millfield.	1
3	10 cm	To find the length of one side of the cube, we need to calculate the cube root of the volume. The volume of the ball is 1,000 cm^3. Since the volume remains the same when the shape is changed, the volume of the cube will also be 1,000 cm^3. The formula for the volume of a cube is: $V = s^3$, where V is the volume and s is the length of one side. Substituting the values, we get: $1{,}000 = s^3$ To find the value of s, we need to calculate the cube root of 1,000. $\sqrt[3]{1{,}000} = 10$ Therefore, the length of one side of the cube would be 10 cm.	1
4	7	To find the number of coaches needed, we need to divide the total number of students by the capacity of each coach: 6 300 ÷ 90 = 70 This means that 70 coaches will be needed to transport all the students. Now, let's look at the equation in the question: 6 300 ÷ 90 = ___ × 10 We can rearrange this equation to solve for the missing number: ___ × 10 = 6 300 ÷ 90 ___ × 10 = 70 ___ = 70 ÷ 10 ___ = 7 Therefore, the missing number in the calculation is 7.	1

5	576	To find the number of 5 cm cubic stones that can fit inside the fish tank, we need to calculate the volume of the tank and divide it by the volume of each stone. Volume of the fish tank = Length × Width × Height Volume of the fish tank = 60 cm × 30 cm × 40 cm = 72,000 cm^3 Volume of each stone = Side $length^3$ Volume of each stone = 5 cm × 5 cm × 5 cm = 125 cm^3 Number of stones that can fit in the tank = Volume of the tank ÷ Volume of each stone Number of stones = 72,000 cm^3 ÷ 125 cm^3 = 576 Therefore, 576 stones with a side length of 5 cm can fit inside the rectangular fish tank.	**1**
6	13	To calculate the mean, we need to add up all the values in the set and then divide by the number of values. Amelia's scores: 12 + 9 + 15 + 11 + 17 + 13 + 19 + 10 = 106 There are 8 scores in total. Mean = 106 ÷ 8 = 13.25 Rounded to the nearest whole number, the mean number of points Amelia scores per match is 13.	**1**
7	14	To find the number of miles travelled, we need to substitute the given total fare into the formula and solve for m. The total fare is given as £24, which is equivalent to 2 400 pence. Substituting this into the formula: 2 400 = 300 + 150m Subtracting 300 from both sides: 2 100 = 150m Dividing both sides by 150: 14 = m Therefore, the passenger travelled 14 miles.	**1**
8	24.5 pages	To find the mean number of pages Amir read per day, we need to add up the total number of pages he read over the four days and divide by the number of days. Total pages read: 23 + 18 + 26 + 31 = 98 pages Number of days: 4 Mean pages per day: 98 ÷ 4 = 24.5 pages Therefore, the mean number of pages Amir read per day over the four days was 24.5 pages.	**1**

9	18 × 12 = 27 × 8	To find the total number of desks in the school, we need to multiply the number of classrooms by the number of desks in each classroom: 18 × 12 = 216 Now, we need to find an equivalent equation that also equals 216. Let's look at each option: 1) 27 × 8 = 216 (correct) 2) 36 × 4 = 144 (incorrect) 3) 54 × 6 = 324 (incorrect) 4) 72 × 2 = 144 (incorrect) Therefore, the correct answer is: 18 × 12 = 27 × 8	1
10	£27	To find out how much each colleague needs to contribute, we need to divide the total cost of the gift by the number of colleagues. Total cost of the gift: £243 Number of colleagues: 9 £243 ÷ 9 = £27 Therefore, each colleague will need to contribute £27 to split the cost of the gift equally.	1