P4 Mathematics Practice Paper: Large Numbers and Four Operations, Fractions and Decimals, Perimeter and Area, Time and Speed, Coordinates and Shapes, Data Handling and Word Problems

P4 | Mathematics | Time: 60 minutes | Total: 100 marks | 24 questions

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Part A: Large Numbers and Four Operations (16 marks)

Show your working; use column form where needed.

1. In the number 4,857,392, which digit is in the millions place and what is its place value? [4]

Answer: Answer: the millions digit is 4 and its place value is 4,000,000.

2. Calculate 25 x 36 + 480 / 8. [4]

Answer: Answer: multiply and divide first: 25 x 36 = 900 and 480 / 8 = 60, so the total is 960.

3. 7,368 apples are shared equally among 24 classes. How many apples does each class get, and is anything left over? [4]

Answer: Answer: 7,368 / 24 = 307 with no remainder, so each class gets 307 apples.

4. Round 6,847,251 to the nearest ten thousand. [4]

Answer: Answer: the thousands digit is 7, so round up to 6,850,000.

Part B: Fractions and Decimals (16 marks)

Give fractions in their simplest form.

5. Reduce 18/24 to its simplest form. [4]

Answer: Answer: divide both terms by 6 to get 3/4.

6. Calculate 3/8 + 1/4 and give the answer in its simplest form. [4]

Answer: Answer: use eighths: 3/8 + 2/8 = 5/8, which simplifies to 5/8.

7. Calculate 5/6 - 1/3 and give the answer in its simplest form. [4]

Answer: Answer: use sixths: 5/6 - 2/6 = 3/6, which simplifies to 1/2.

8. Calculate 3.6 + 2.75 and write the answer as a decimal. [4]

Answer: Answer: line up the decimal points: 3.6 + 2.75 = 6.35.

Part C: Perimeter and Area (17 marks)

Give the unit in every answer.

9. A rectangle is 12 cm long and 7 cm wide. Find its perimeter and its area. [4]

Answer: Answer: perimeter = (12 + 7) x 2 = 38 cm; area = 12 x 7 = 84 cm2.

10. A square has an area of 144 cm2. Find its side length and its perimeter. [4]

Answer: Answer: side x side = 144, so the side is 12 cm; perimeter = 12 x 4 = 48 cm.

11. A triangle has a base of 14 cm and a height of 9 cm. Find its area. [4]

Answer: Answer: area = base x height / 2 = 14 x 9 / 2 = 63 cm2.

12. A poster is 20 cm by 12 cm. A rectangle 6 cm by 5 cm is cut out of the middle. What area is left? [5]

Answer: Answer: the original area is 20 x 12 = 240 cm2; the cut-out is 6 x 5 = 30 cm2; 210 cm2 is left.

Part D: Time, Speed and Journeys (17 marks)

Give times in hours and minutes.

13. How much time passes from 8:45 to 11:20 in the morning? [4]

Answer: Answer: 2 hours 35 minutes, which is 155 minutes.

14. A bus travels 240 km in 3 hours. What is its average speed? [4]

Answer: Answer: speed = distance / time = 240 / 3 = 80 km/h.

15. A van travels at 65 km/h for 4 hours. What distance does it cover? [4]

Answer: Answer: distance = speed x time = 65 x 4 = 260 km.

16. Ming travels 120 km in 2 hours and returns along the same road in 3 hours. Find the average speed for the whole trip. [5]

Answer: Answer: total distance = 120 x 2 = 240 km; total time = 2 + 3 = 5 hours; average speed = 240 / 5 = 48 km/h.

Part E: Coordinates, Angles and Shapes (17 marks)

Give angles in degrees.

17. Point A is at (3, 5). Move 4 units right and 2 units down. What are the coordinates of the new point? [4]

Answer: Answer: the x-coordinate becomes 3 + 4 = 7 and the y-coordinate becomes 5 - 2 = 3, so the new point is (7, 3).

18. Two adjacent angles lie on a straight line. One of them is 68 degrees. What is the other? [4]

Answer: Answer: angles on a straight line add up to 180 degrees, so 180 - 68 = 112 degrees.

19. A triangle has two angles of 45 degrees and 65 degrees. Find the third angle. [4]

Answer: Answer: the angles of a triangle add up to 180 degrees, so 180 - 45 - 65 = 70 degrees.

20. How many lines of symmetry does a square have, and how many does a rectangle have? What is the total? [5]

Answer: Answer: a square has 4 and a rectangle has 2, so the total is 6.

Part F: Data Handling and Word Problems (17 marks)

Write an expression for each word problem.

21. Ming scores 78, 85, 90 and 71 in four tests. What is his average score? [4]

Answer: Answer: total = 78 + 85 + 90 + 71 = 324; average = 324 / 4 = 81 marks.

22. A bar chart shows favourite fruit: apple 24 pupils, banana 18, orange 30, pear 12. How many pupils were surveyed? [4]

Answer: Answer: 24 + 18 + 30 + 12 = 84 pupils.

23. Each notebook costs $18.5. May buys 6 and pays with $200. How much change does she get? [4]

Answer: Answer: the cost is 18.5 x 6 = $111, so the change is 200 - 111 = $89.

24. A class has 36 pupils and 5/9 of them are girls. How many girls and how many boys are there? [5]

Answer: Answer: girls = 36 x 5 / 9 = 20; boys = 36 - 20 = 16.
