

11 Plus Examination Paper 1

Mathematics

Total marks: [42]

Time allowed: 25 minutes

Name _____

Instructions:

- You have 30 minutes.
- There are 42 marks available.
- If you get stuck, go onto the next question and come back at the end.
- The marks available for each question are outlined in brackets.
- Use either pen or pencil and write your answers on the paper.
- The answer key can be found at the end of the paper.

The scores of five students in a math test are 85, 90, 78, 85, and 92.

1. What is the mode of the scores? (1 mark)

2. A famous artist was born in 1945 and lived for 60 years before passing away. In which year did the artist pass away? (1 mark)

3. Sarah's map has a scale of 1: 50,000 cm. She measures the distance on the map between two landmarks and finds it is 10 cm. How far is this in kilometers? (2 marks)

4. In a basketball game, Riley makes 90% of her free throws. Peyton makes 72 out of 100 free throws. Who has a higher free throw percentage? (1 mark)

5.Round the following numbers to three decimal places (3 marks):

a. 5.67894

b. 0.04567

c. 12.34567

6.What is the highest factor of both 12 and 18? (1 mark)

7.Alice's pencils cost ***a*** pence each. Bob's pencils cost ***b*** pence each. Write an expression for the total cost if Alice buys 5 pencils and Bob buys 8 pencils. (2 marks)

8.In John's store, a box of cereal weighs 1.2 times as much as a bag of flour. If four bags of flour weigh 2kg, how much do seven boxes of cereal weigh? Give your answer in kilograms. (2 marks)

9. Order the following decimals from largest to smallest (2 marks):
7.056, 7.5, 7.0567, 7.0562

10. Anna wants to make 1.5 liters of fruit punch. She knows she needs four times as much juice as fruit syrup. She has 300 milliliters of fruit syrup. Does she have enough to make 1.5 liters? (2 marks)

11. A jar contains six blue marbles, three red marbles, and eight white marbles. John picks a marble at random. What is the likelihood of him picking a blue marble? (2 marks)

12. A farm has 80 animals. Three quarters of them are cows. How many non-cows are there? (2 marks)

13. A theater has 500 seats. Three tenths of them are occupied. How many seats are unoccupied? (2 marks)

14. A recipe requires flour and sugar in the ratio 4:1. If you have 200 grams of flour, how much sugar do you need? (3 marks)

B. The ratio of students who prefer basketball to those who prefer football is 7:4. If there are 28 students who prefer basketball, how many students prefer football? (3 marks)

C. The ratio of red to green to blue balls in a box is 3:2:5. If there are 40 green balls, how many balls are there in total? (3 marks)

15. In an isosceles triangle, the two equal angles are 45° each. What is the size of the third angle? (2 marks)

16. A cube has a volume of 512cm^3 . Another cube has a total surface area of 150cm^2 . What is the difference in the length of their sides? (4 marks)

17. The perimeter of an equilateral triangle is 36 cm. What is the length of one of its sides? (2 marks)

B. The area of a square is 81cm^2 . What is the length of one of its sides? (2 marks)

18. Work out 2500×0.40 . (2 marks)

Answers:

1. 85
2. 2005
3. 5 kilometers
4. Riley
5.
 - a. 5.679
 - b. 0.046
 - c. 12.346
6. 6
7. $5a + 8b$
8. 4.2 kilograms
9. 7.5, 7.0567, 7.0562, 7.056
10. Yes
11. 6/17
12. 20
13. 350
14. 50 grams
 - b -16
 - c -200
15. 90°
16. 3 cm
17. 12 cm
 - b - 9 cm
18. 1000