

11 Plus Examination Paper 2

Mathematics

Total marks: [40]

Time allowed: 25 minutes

Name _____

Instructions:

- You have 25 minutes.
- There are 40 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.

1. Write twenty-eight thousand and forty-six in figures. (1 mark)

2. Round the following numbers to one decimal place (3 marks) :

a. 9.876

b. 0.1234

c. 7.891

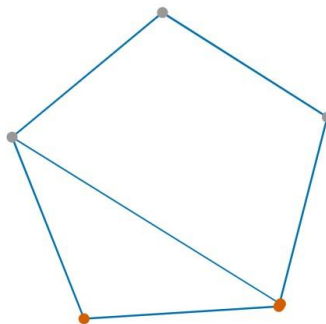
3. In a photography contest, Casey's photo scores 64% from the judges. Taylor's photo scores 40 out of 50 points. Who has the higher score? (2 marks)

4. What is the highest factor of both 24 and 36? (1 mark)

5. A groundbreaking medical treatment was introduced in 1990 and was used for 20 years before being replaced by a new treatment. In which year was it replaced? (2 marks)

6. The number of books read by each member of a book club last month are 4, 5, 5, 7, 8, and 10. What is the range of the number of books read? (1 mark)

7. How many obtuse angles are found in the shape below? (1 mark)



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. Lisa's map has a scale of 1: 80,000 cm. She measures the distance on the map between two bridges and finds it is 6 cm. How far is this in kilometers? (2 marks)

10. Tom's apples cost p pence each. Jerry's oranges cost o pence each. Write an expression for the total cost if Tom buys 7 apples and Jerry buys 9 oranges. (2 marks)

11. In Olivia's bookstore, a hardcover book weighs 2 times as much as a paperback book. If twelve paperback books weigh 3kg, how much do eight hardcover books weigh? Give your answer in kilograms. (2 marks)

12. Emily wants to make a protein shake. She knows she needs three times as much milk as protein powder. She has 500 milliliters of protein powder. How many litres of milk will she need to make the protein shake? (2 marks)

13. A container has five red buttons, ten green buttons, and twelve blue buttons. Emily picks a button at random. What is the likelihood of her picking a green button?

14. A sports team has 25 players. Four fifths of them are under 30 years old. How many players are 30 years old or older? (2 marks)

15. A company's revenue is £1,200,000. One fifth of the revenue comes from product A, and three tenths of the revenue from product A is reinvested into the company. How much revenue from product A is not reinvested? (3 marks)

16. In a classroom, the ratio of boys to girls is 3:2. If there are 18 boys, how many girls are there? (3 marks)

b. A company employs workers in the ratio of 4:7:9 for managers, engineers, and technicians. If there are 180 engineers, how many workers are there in total? (4 marks)

17. Look at the following temperatures (in degrees Celsius) recorded over six hours:

Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6
18	20	21	19	22	?

The temperature for Hour 6 is missing. The mean temperature was 20 degrees Celsius. What is the missing temperature? (3 marks)

18. A cube has a volume of 64cm^3 . Another cube has a total surface area of 150cm^2 . What is the difference in the length of their sides? (4 marks)

Answers:

1. 28046

2.

- a. 9.9
- b. 0.1
- c. 7.9

3. Taylor's photo has the higher score.

4. 12

5. 2010

6. 6

7. 3

8. 8.4 kg

9. 4.8 km

10. $7a + 9o$

11. 4 kg

12. 1.5 litres

13. The likelihood is $\frac{10}{27}$.

14. 5 players

15. £192,000

16.

a. 12 girls

b. 540 workers

17. 20 degrees Celsius

18. The difference in the length of their sides is 1 cm.