

11 Plus Examination Paper 3

Mathematics

Total marks: [49]

Time allowed: 23 minutes

Name _____

Instructions:

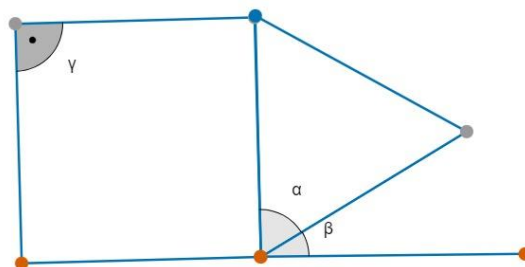
- You have 23 minutes.
- There are 39 marks available.
- If you get stuck, go onto the next question and come back at the end.
- The marks available for each question are outlined in brackets.
- Use either pen or pencil and write your answers on the paper.
- The answer key can be found at the end of the paper.

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1. The perimeter of a square is 40 cm. What is the length of one of its sides?
(1 mark)
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2. Write seventy-two thousand, one hundred and eighty-three in figures. (1 mark)
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3. Work out 2200×0.60 . (2 marks)
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4. How many acute angles are in the diagram below? (2 marks)



5. Fill in the missing numbers in these sequences (5 marks):

- a. 9, 18, 36, 72, _____
- b. 5, 7, 11, 19, _____
- c. 3, 12, 48, 192, _____
- d. 2, 6, 18, 54, _____
- e. 4, 16, 64, 256, _____

6. In a triangle, one angle is 50° and another angle is 70° . What is the size of the third angle? (2 marks)

7. 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)

8. 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)

9. A concert venue can hold 12,000 people. Two fifths of the tickets are VIP tickets, and one quarter of the VIP tickets are sold out. How many tickets are not sold out? (3 marks)

10. A pot contains three red flowers, eight blue flowers, and twelve white flowers. Michael picks a flower at random. What is the likelihood of him picking a blue flower? (1 mark)

11. Jack wants to make 7.5 liters of fertilizer mix. He knows he needs six times as much water as fertilizer concentrate. He has 1.2 litres of fertilizer concentrate. Does he have enough to make 6 liters? Why / Why not? (2 marks)

12. Order the following decimals from largest to smallest (1 mark) :
9.876, 9.8765, 9.87, 9.875

13. In Ryan's farm, a bale of hay weighs 1.7 times as much as a sack of grain. If six sacks of grain weigh 9kg, how much do five bales of hay weigh? Give your answer in kilograms. (2 marks)

14. Peter's notebooks cost p pounds each. Jane's notebooks cost q pounds each. Write an expression for the total cost if Peter buys 5 notebooks and Jane buys 3 notebooks. (2 marks)

15. A cube has a volume of 125cm^3 . Another cube has a total surface area of 96cm^2 . What is the difference in the length of their sides? (4 marks)

16. The perimeter of a regular octagon is 120 cm. What is the length of one of its sides? (2 marks)

17. Look at the following scores recorded from a quiz competition:

Round 1	Round 2	Round 3	Round 4	Round 5	Round 6
8	9	10	?	6	7

The temperature for Round 6 is missing. The mean score was 8. What is the missing temperature? (3 marks)

18. In a triangle, the angles are in the ratio 2:3:4. What is the size of each angle? (4 marks)

Answers:

1. 10 cm

2. 72183

3. 1320

4. 4

5.

a. 144

b. 35

c. 768

d. 162

e. 1024

6. 60°

7. 540 workers

8. 200 balls

9. 8400 tickets

10. The likelihood is $\frac{8}{23}$

11. Yes, he has enough because 1.2 liters of concentrate requires 7.2 liters of water, totaling 8.4 liters of mix.

12. 9.8765, 9.876, 9.875, 9.87

13. 45.9 kg

14. $5p + 3q$

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

16. 15 cm

17. The missing score is 8.

18. The angles are 40° , 60° , and 80° .