



Queen Margaret College Mathematics Sample Paper

This paper is provided to give you practice doing a test under timed conditions as you might not have experienced this before. Test conditions means that you will work in silence, uninterrupted, and with no books or any help from other people. In the real test you will stay in your seat and raise your hand if you need something.

Some of the questions are similar in style to those you will meet in the scholarship test but the questions included here are not intended to be exactly the same.

Calculators are not to be used and you should give yourself about 30 minutes to do this practice paper.

Instructions

Some tips for doing tests:

- Try to answer as many questions as you can.
- If you cannot answer a question, do not waste too much time on it – leave it blank and go on to the next question.
- Write your answers in the spaces provided. If you need to work something out, show it on the paper, no scrap paper will be provided.



Practice Questions

1. Find all the pairs of numbers that multiply to give 24
2. Find all the pairs of numbers that multiply to give 13
3. Find three numbers that multiply together to make 24. Can you do this in more than one way?
4. Add any symbols (+, -, ×, ÷) and brackets into this equation to make it correct

$$4 \quad 6 \quad 3 \quad 2 \quad = \quad 15$$

5. There are 30 children in a class. The teacher gives each child: 2 pencils, 1 ruler and 1 pen. How many items does she hand out in total?

There is a show performance happening at school. Questions 6-10 relate to the show.

6. The price of an adult ticket to the show costs \$2.50. How much will 12 tickets cost?
7. At the show there is enough room for 240 seats. If there are 12 rows, how many chairs are in each row?
8. A child's ticket costs \$1.50. Grandma buys 6 adult tickets and 6 child tickets. How much do they cost altogether?
9. How much change will Grandma receive if she pays with a \$50 note?
10. The school sells 160 adult tickets and 50 children tickets. How much money does the school raise altogether?

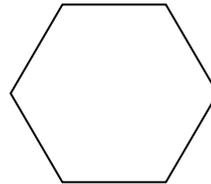
11. Jaime goes to a football match with her Dad. They like to get to the ground 30 minutes before kick-off and their car journey to their parking space takes 1 hour and 5 minutes. The walk from the car park to their seats takes 16 minutes and kick-off is at 3pm. What time should Jamie and her Dad leave home?
12. Karena is having a party and she will buy pizza for everyone. There are 27 people at the party and everyone wants 3 slices. Pizza's have 6 slices, so how many pizzas does she need to buy?
13. Write the expanded numeral as an ordinary number: $4 \times 1000 + 8 \times 100 + 4$
14. If the time is 9.30pm, what will the time be in four and a quarter hours?
15. How long is it between 1130 hr and 2315 hr?

16. Name the following shapes:

a

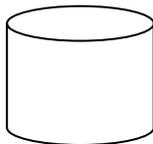


b

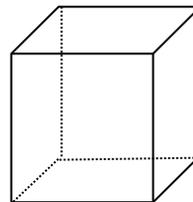


17. Name the following solid shapes:

a



b



18. a $\frac{1}{5} + \frac{3}{5} =$

b $\frac{2}{3} + \frac{4}{3} =$

19. Give the next number in each of these patterns:

a 3, 7, 11, 15, _____

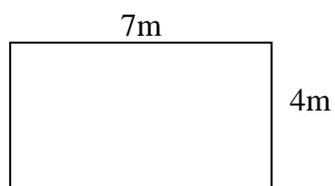
b 1, 2, 4, 8, _____

20. Place in order from smallest to largest:

$\frac{2}{3}$ $\frac{7}{10}$ $\frac{3}{5}$

21. How many metres in 2.61 km?

22. Work out the area and perimeter of the following (remember to include units):

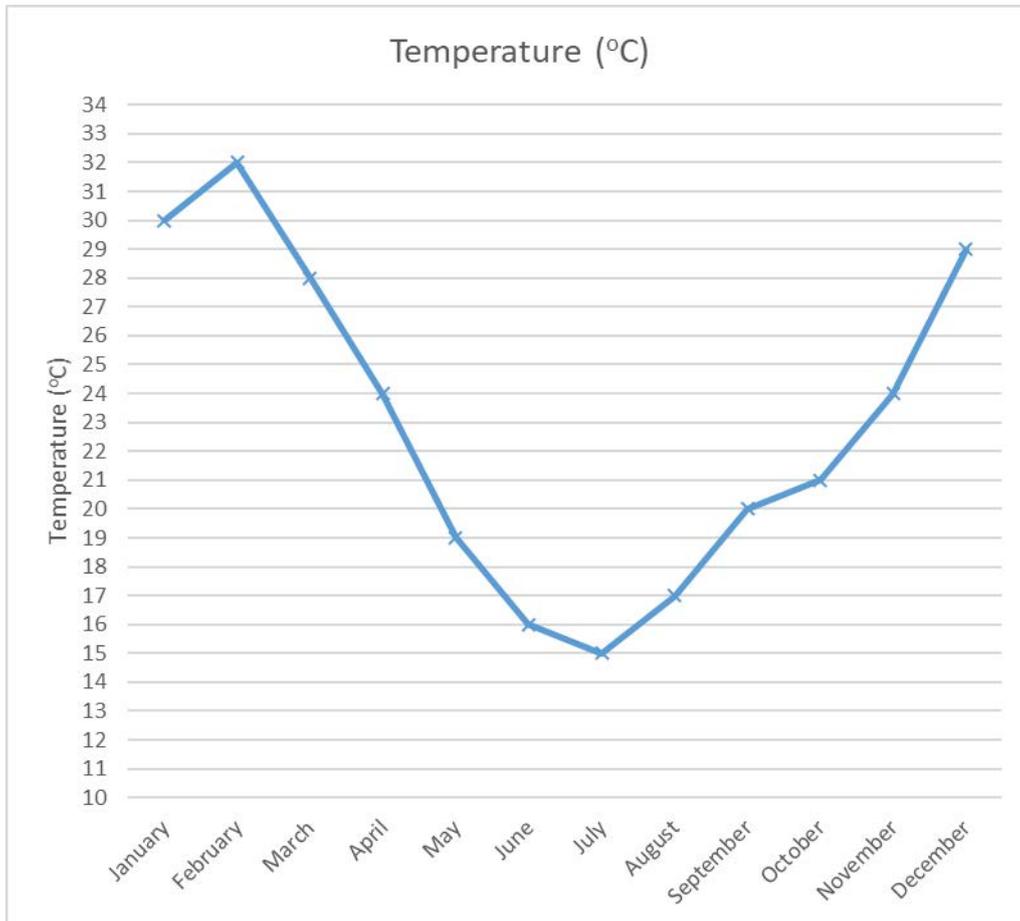


Area = _____

Perimeter = _____

Questions 23-25 relate to the graph below:

Sarah is very interested in the weather and records the maximum air temperature for each month through the year. She made a graph showing the temperatures. Answer the questions using the information shown in the graph. Note that the graph does not start at zero.



23 What is the highest recorded temperature?

24. Where do you see a change of 5 degrees in the graph?

25. Which month recorded a temperature of 20°C