



**KING HENRY VIII
SCHOOL**

Entrance Examination

11+ SAMPLE PAPERS

This booklet contains sample test
questions for **Maths**

Specimen Questions for Mathematics Test

- There will be one Mathematics Test
- The Test will last 45 minutes.
- Calculators will **NOT** be allowed.

Summary of work to be covered

- Addition, subtraction, multiplication and division of whole numbers (excluding long division).
- Addition and subtraction of Decimals.
- Multiplication and division of a decimal by a whole number.
- Simple addition and subtraction of fractions (e.g. $\frac{1}{4} + \frac{1}{2}$) but excluding formal methods for more complicated cases.
- Equivalence of simple fraction and decimals.
- Prime Numbers, number patterns and Simple sequences.
- Simple units of length, area volume, mass and money.
- Areas of rectangles, triangles and simple compound figures.
- Perimeter and volume of cuboids.
- Time, the 24 hour clock, distance, speed in simple cases, reflections and line symmetry.
- Angles, simple rotations and eight points of the compass.
- Averages, interpretation of graphs, Bar charts and Pie charts.

1. ADD

$$\begin{array}{r} 4276 + \\ 847 \\ \hline \\ \hline \end{array}$$

2. SUBTRACT

$$\begin{array}{r} 753 - \\ 231 \\ \hline \\ \hline \end{array}$$

3. MULTIPLY

$$\begin{array}{r} 716 \times \\ 8 \\ \hline \\ \hline \end{array}$$

4. DIVIDE

$$7 \overline{) 2912}$$

5. SUBTRACT

$$\begin{array}{r} 624 - \\ 96 \\ \hline \\ \hline \end{array}$$

6. DIVIDE

$$5 \overline{) 10040}$$

7. ADD

$$\begin{array}{r} 596 + \\ 73 \\ 845 \\ \hline \\ \hline \end{array}$$

8. MULTIPLY

$$\begin{array}{r} 842 \times \\ 34 \\ \hline \\ \hline \\ \hline \end{array}$$

9. Write $\frac{3}{1000}$ as a decimal

Ans: _____

10. Write 0.3 as a fraction

Ans: _____

11. Write 0.75 as a fraction
Give your answer in its simplest form

Ans: _____

12. Which is the larger fraction

$$\frac{7}{11} \text{ or } \frac{7}{10} ?$$

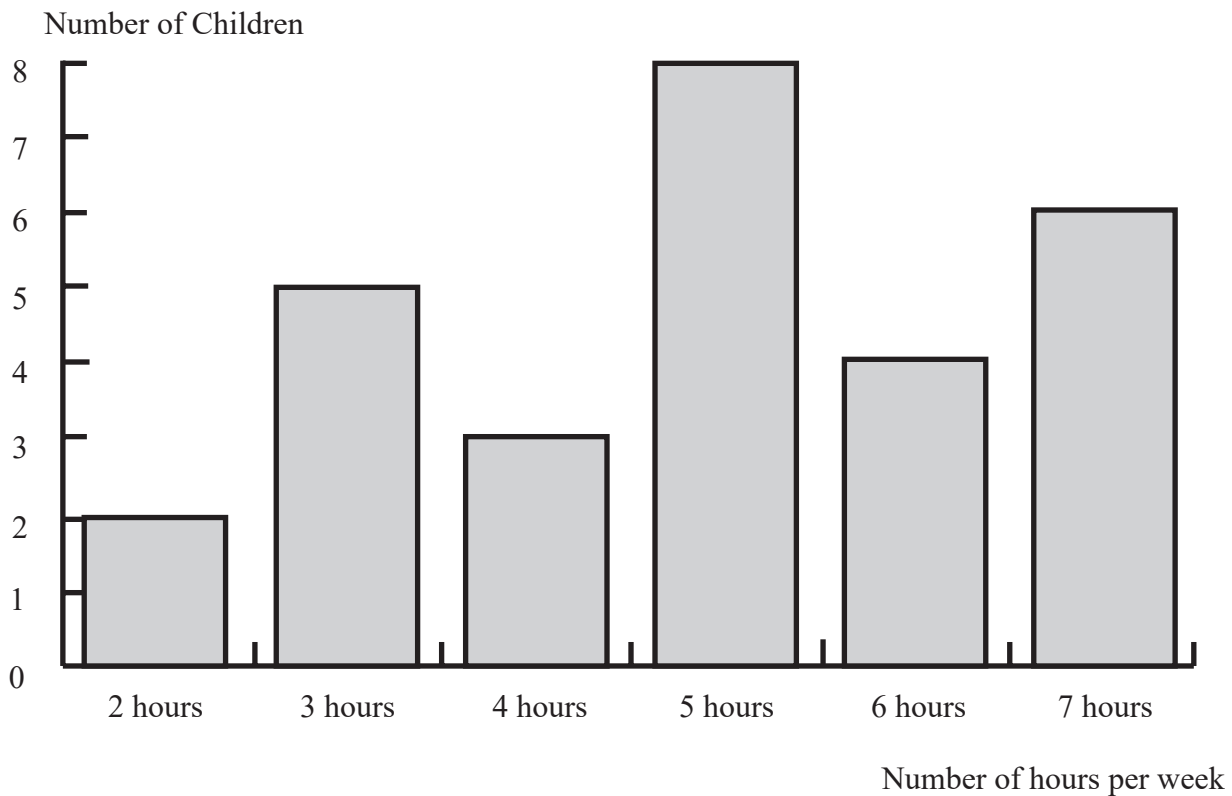
Ans: _____

13. How many prime numbers are there between 10 and 20?

Ans: _____

For questions 14 to 16

The children in a class were asked how many hours they spent each week watching television. Their replies are shown on the bar chart.



14. How many children watched television for less than 5 hours per week?

Ans: _____

15. How many children watched for 5 hours or more?

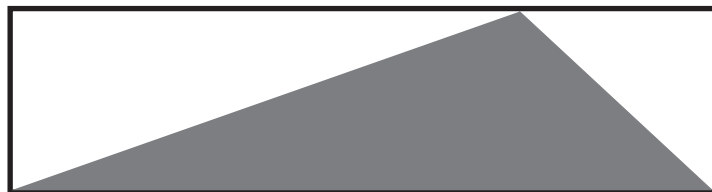
Ans: _____

16. How many children were there in the class?

Ans: _____

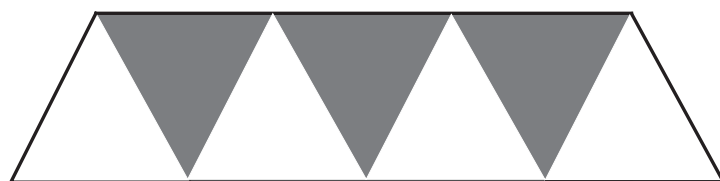
What fractions are the following shapes shaded?

17.



Ans: _____

18.



Ans: _____

For each of the following sequences of numbers fill in the spaces.

19. 23, 30, 37, 44, _____

20. 1, 7, 3, 9, 5, 11, 7, _____, _____

21. 700, 570, 440, 310, _____

22. 1, 4, 16, 64, _____

23. 1, 3, 6, 10, 15, _____

24. How many minutes are there in 7 hours?

Ans: _____ minutes

25. Jaspal is collecting model aeroplane kits. There are 6 models in the set and they cost £5.99 each.

How much will the full set cost?

Ans: £ _____

26. Mr and Mrs Swales send 70 Christmas cards by post to their friends. They send them all by second class post and the stamps are 19p each.

How much does the postage cost?

Ans: £ _____

27. Give a number between 60 and 80 which is divisible by both 6 and 9.

Ans: _____

28. Work out $3\frac{2}{5} + 7\frac{3}{5}$

Give your answer in its simplest form.

Ans: _____

29. Chloe entered an ice-skating competition and the six judges awarded her marks as follows:

4.8, 5.4, 5.7, 4.9, 5.1, 5.3

What was the average of these marks?

Ans: _____

30. I am thinking of a number.

When I multiply it by 3 and then add 5 I get the number 56.

What number was I thinking of?

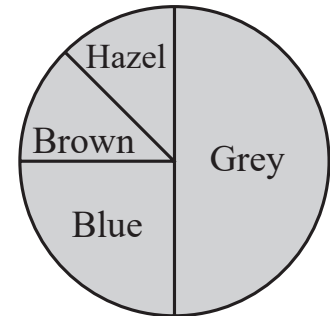
Ans: _____

31. The population of Rugby is seventy thousand and eighty.

Write this number in figures.

Ans: _____

For questions 32 to 34



96 children took part in a survey to record the colour of their eyes.

The results are shown on the pie chart.

32. What fraction of the children had brown eyes?

Ans: _____

33. How many children had blue eyes?

Ans: _____

34. What is the combined number of children who had either blue or grey eyes?

Ans: _____

35. Philip goes shopping for his mother.

He buys:

1 packet of soap powder costing £1.55

2 packets of crisps at 30p each

1 small loaf for 38p

And 8 cans of drink at 35p each

His mother gave him a £5 but he found this was not enough.

How much extra did he need?

Ans: _____ p

36. A builder has to move 35 tonnes of rubble to a tip.

His lorry only holds 8 tonnes.

How many trips will he have to make?

Ans: _____ trips

37. If you face North-West and then turn through 180° , which direction are you then facing?

Ans: _____

38. A television programme lasts two and a half hours and starts at 7.50pm

At what time does it finish?

Ans: _____ pm

39. Sarah went for a ride on her bike.

She set out at 9 o'clock in the morning and got back at 4 o'clock in the afternoon and had cycled a total of 56 miles.

What was her average speed?

Ans: _____ mph

40. Peter was counting cars passing the school gate.

He counted twice as many red ones as blue ones and noticed there were 7 more blue ones than green ones, and that there were 3 times as many green ones as yellow ones.

If there were only 5 yellow ones, how many red ones did he count?

Ans: _____

41. Last Saturday Kiran watched the following programmes on television:

- (i) A Wildlife programme lasting 45 minutes
- (ii) A comedy show lasting 35 minutes
- (iii) A film lasting 2 hours 20 minutes

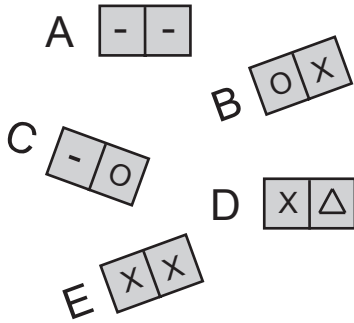
How long did she watch in total?
Give your answer in hours and minutes.

Ans: _____ h _____ mins

42.



8 dominoes are to be placed in a row, always with matching symbols next to one another. The first three have been put in place and the remaining five are shown below.



Which domino, A, B, C, D or E will come last when they are arranged properly?

Ans: _____

43. Robert and William each had less than 30 sweets.

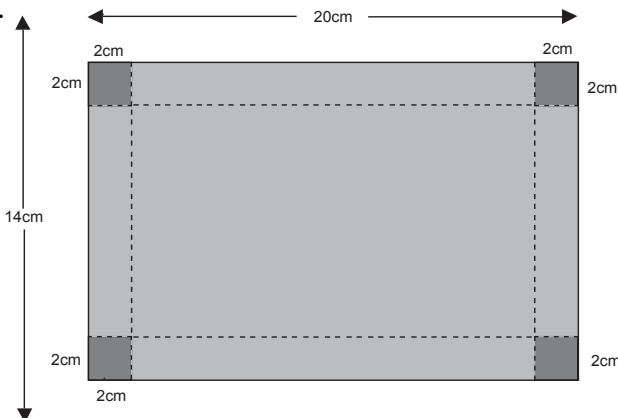
“You’ve got 3 times as many I have” said Robert

“Yes”, said William, *“but if I give you 3 sweets I’ll only have twice as many as you then have”.*

How many sweets had Robert to start with?

Ans: _____ sweets

44.



From a sheet of cardboard 20cm by 14cm, the corners are removed (each 2cm by 2cm) and the remainder folded along the dotted lines to form a small rectangular box, without a lid.

What is its volume?

Ans: _____³cm

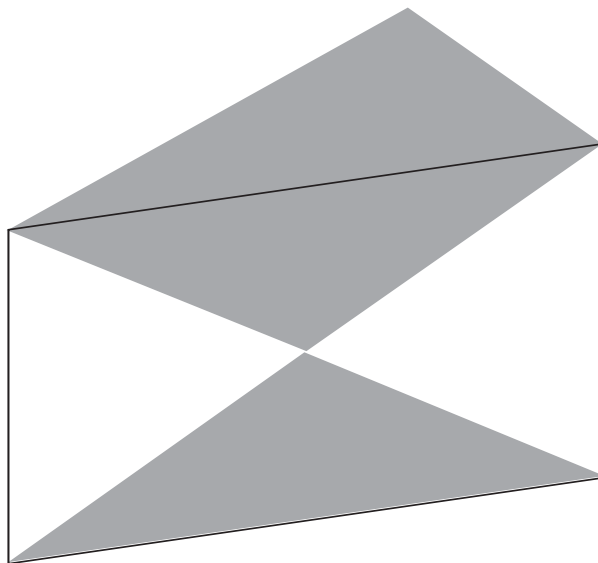
45. 6 friends were comparing their ages. They discovered that their ages add up to 80 years.
What will their ages add up to in 7 years time?

Ans: _____ years

46. Nikita saved up her pocket money to buy some paint brushes for her watercolour set.
She brought 3 large brushes and 2 small ones for £5.20. Her friend Natasha brought 3
large brushes and 3 small ones and it cost her £6.
How much did one large brush cost?

Ans: £ _____

47.



How many triangles are there in the shape shown?

Ans: _____ triangles

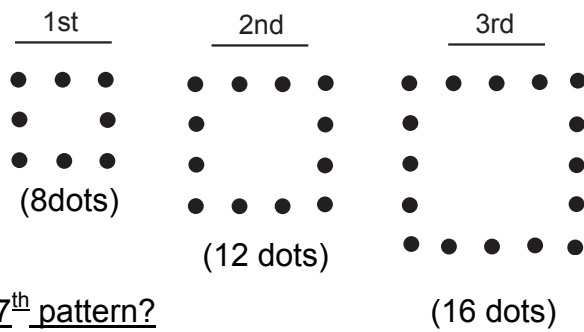
48. The lockers in a sports changing room are arranged in two rows and numbered as shown.

1	2	3	→ -----	58	59	60
120	119	118	----- ←	63	62	61

Which locker is directing above number 87?

Ans: _____

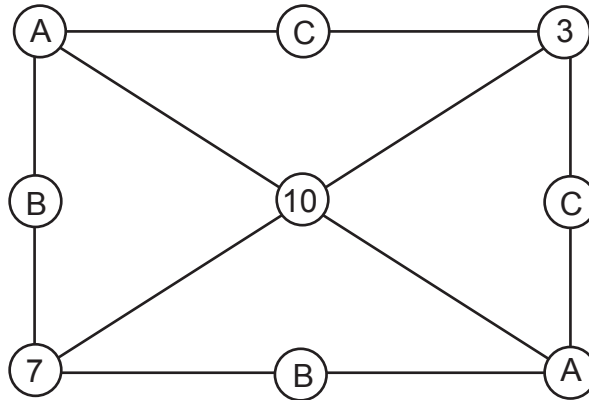
49. Look at the following pattern of dots.



How many dots would there be in the 7th pattern?

Ans: _____

50.



A, B and C stand for different numbers. In the diagram any three numbers connected by a straight line always add to the same total.

By working out what A, B and C stand for, calculate the value of $A + B + C$

Ans: _____

END: Now go back and check your answers.

Specimen Questions

Answers

Mathematics

- | | | | |
|-------------------|---|-------------------|--------------------|
| 1. 5123 | 2. 522 | 3. 5728 | 4. 416 |
| 5. 528 | 6. 2008 | 7. 1514 | 8. 28628 |
| 9. 0.003 | 10. $\frac{3}{10}$ | 11. $\frac{3}{4}$ | 12. $\frac{7}{10}$ |
| 13. 4 | 14. 10 | 15. 18 | 16. 28 |
| 17. $\frac{1}{2}$ | 18. $\frac{3}{7}$ | 19. 51 | 20. 13, 9 |
| 21. 180 | 22. 256 | 23. 21 | 24. 420 |
| 25. £35.94 | 26. £13.30 | 27. 72 | 28. 11 |
| 29. 5.2 | 30. 17 | 31. 70080 | 32. $\frac{1}{8}$ |
| 33. 24 | 34. 72 | 35. 33 | 35. 5 |
| 37. SE | 38. 10.20 | 39. 8 | 40. 44 |
| 41. 3hrs 40mins | 42. D <input type="checkbox"/> <input type="checkbox"/> | 43. 9 | 44. 320 |
| 45. 122 | 46. £1.20 | 47. 9 | 48. 34 |
| 49. 32 | 50. 25 | | |