



# FOREST SCHOOL

11+

ENTRANCE AND SCHOLARSHIP  
SAMPLE PAPERS

Sample Paper

FOREST SCHOOL  
SAMPLE ENTRANCE EXAMINATION  
MATHEMATICS

Calculators are **NOT** allowed  
Time: One hour

NAME .....

CANDIDATE NUMBER .....

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1      Work out       $76 + 65$

ANSWER .....

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2      Work out       $92 - 57$

ANSWER .....

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3      Work out       $73 \times 8$

ANSWER .....

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4      Work out       $868 \div 7$

ANSWER .....

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5      How many £5 notes are needed to make £1000 ?

ANSWER .....

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TURN OVER

- 6 How much change would I get from £20 if I bought 3 pens at £1.60 each, 2 pencils at 62p each and a magazine for £4.50 ?

ANSWER.....

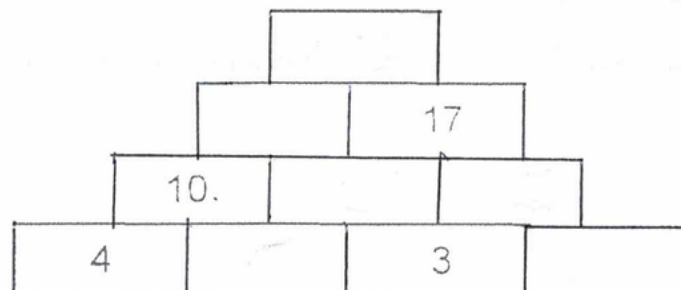
- 7 How many seconds are there in one week ?

ANSWER.....

- 8 Daisy the cow takes 1 hour to walk 4 km. Silver Blaze the horse walks 3 times as fast as Daisy. At this speed how long would it take Silver Blaze to walk 4 km ?

ANSWER... ..

- 
- 9 In this pyramid each number is the sum of the two numbers below it. Complete the boxes.



- 10 Theo has taken 4 tests and his average mark is 60%. He scores 70% on his fifth test. What is his average now?

ANSWER.....

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- 11 Priya has 5p and 13p stamps. She can make a 36p total with two 5p stamps and two 13p stamps. How could she make the following totals?

(a) 33p

ANSWER.....

(b) £1.26

ANSWER.....

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- 12 How could this sequence continue?

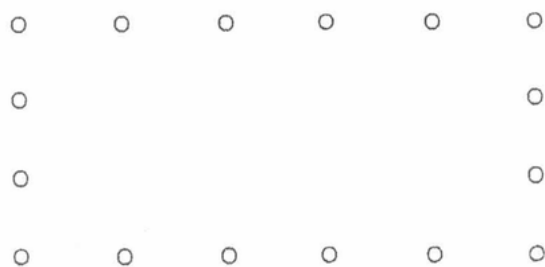
3, 7, 11, ...

Give the next 2 numbers with a reason for your answer.

ANSWER..... REASON.....

TURN OVER

- 13 16 counters are arranged to make a 6 counter by 4 counter border.



How many counters are needed to make the following?

- (a) A 20 counter by 5 counter border

ANSWER.....

- (b) A 200 counter by 50 counter border

ANSWER.....

- 14 Write in digits the number "four million four hundred and four".

ANSWER.. ..

- 
- 15 A 9 cm wide marble just fits inside a cube-shaped box. How many 3 cm wide marbles would fit inside the box?

ANSWER.. ..

- 16 In Norton Juster's book *The Phantom Tollbooth* we learn that the hero, Milo, smiles warmly on average 47 times a day.  
How often would you expect him to smile warmly in January? (There are 31 days in January)

ANSWER.....

- 17 On one day in 2008 £1 was worth \$1.25. What was \$1 worth in pence on that day?

ANSWER.....

- 18 Find the missing prime number

29, 31, ? , 41, 43

ANSWER.....

- 
- 19 A maths book costs £15.49. How much change do you get if you pay only with £1 coins?

ANSWER.....

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TURN OVER

20

Gavinder is 11 years and 2 months old.  
Bhavash is 10 years and 8 months old.  
Siobhan is 9 years and 5 months old.

What is their average age in years and months?

ANSWER.....

21 In a bag there are twice as many blue balls as red balls. There are 18 balls altogether. How many blue balls are there?

ANSWER.....

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22 Ayesha has some sweets. He gives  $\frac{1}{6}$  of them to Neelesh.

Neelesh immediately eats one of them.

Neelesh now has 4 left.

How many has Ayesha got left?

ANSWER.....

- 23 A film lasts 2 hours 20 minutes.  
I start watching it at 7:45pm.  
At what time does it finish?

ANSWER.....

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- 24 Multiply 21 by  $\frac{2}{7}$

ANSWER.....

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- 25 Mike's copy of Leo Tolstoy's *War and Peace* is 981 pages long.  
Mike decides to read 25 pages a day.  
He finishes the book in how many days?

ANSWER.....

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- 26 Rule: If a card has a vowel on one side, then it has an even number on the other side.

7

4

A

D

Which one of these four cards **cannot** have a 7 on the back?

ANSWER.....

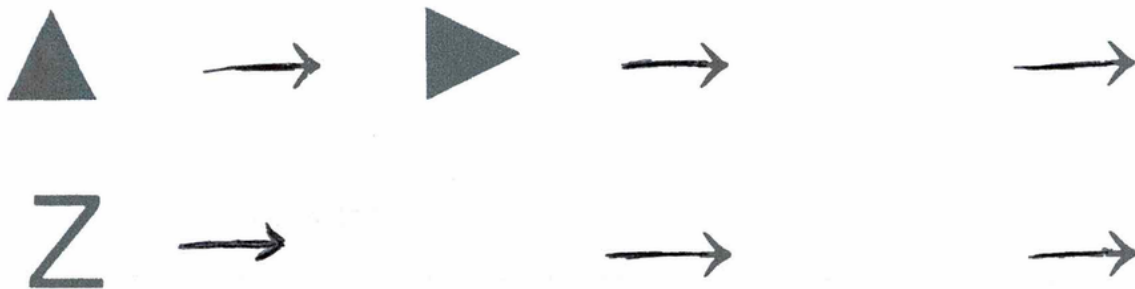
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TURN OVER

27 What is  $\frac{1}{3}$  of 414?

ANSWER...

28 Complete these sequences of clockwise quarter turns



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29 What is 0.15 as a fraction in its lowest terms?

ANSWER - .....

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30 What is  $1.83 + 0.2$ ?

ANSWER = .....

- 31 The Ancient Egyptians generally only used "unit fractions", having the number 1 as numerator (such as  $\frac{1}{3}$  or  $\frac{1}{7}$ ).

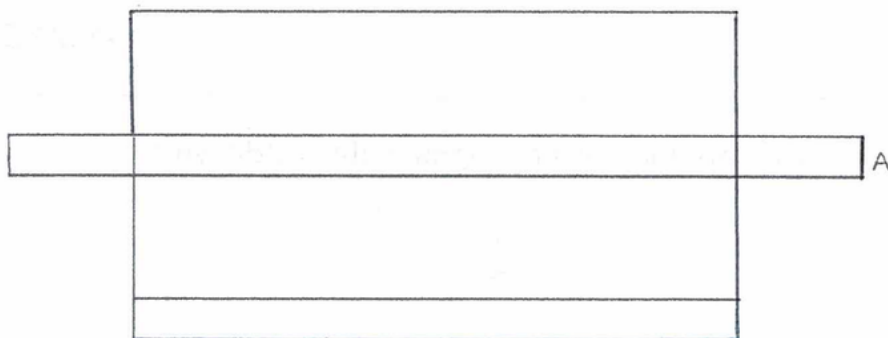
So they might write  $\frac{5}{18}$  as  $\frac{1}{9} + \frac{1}{6}$

Write  $\frac{2}{3}$  as the sum of 2 or more DIFFERENT unit fractions.

ANSWER.....

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- 32 This net is folded to make a box.  
Mark clearly the edge which ends up next to edge A.



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TURN OVER

- 33 Find the number of different ways of arranging the letters CYZZ by listing them all. The first two are done for you.

CYZZ, CZYZ, ...

TOTAL NUMBER OF WAYS.. ..

- 34 In a chess league there are 3 teams and they all play each other once. How many matches are there altogether?

ANSWER.....

- 35 What are the missing digits in this **addition**?

$$\begin{array}{r}
 1 \quad \blacktriangle \quad 7 \\
 9 \quad 1 \quad \blacksquare \\
 \hline
 \$ \quad \# \quad 5 \quad 1
 \end{array}$$

ANSWER  $\blacktriangle =$  .....

$\blacksquare =$  .....

$\# =$  .....

$\$ =$  .....

36 Subtract 0.02 from 1.3

ANSWER.....

---





37 What number is halfway between 1.9 and 1.99?

ANSWER.....

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38

    = £16

    = £20

    = £16

    = £6

Using the totals given, can you calculate the price of each of the four shapes?



 = .....

 = .....

 = .....

 = .....

TURN OVER

- 39 Jenny is doing a maths exam and scores 136 out of 214.  
How many marks did she miss out on?

ANSWER.....

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- 40 What is the 102<sup>nd</sup> letter of this sequence of letters?

A E I O Ü A E I O U A E etc.....

ANSWER.....

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- 41 Prashant wants to tape "The Y Factor" one Saturday evening.  
It starts at 7:20pm and ends at 9:10pm  
He uses a three hour tape.  
How many spare minutes will he have on the tape when he has finished recording?

ANSWER.....

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- 42 Romily and Reema are collecting money for charity.  
Romily collects £10 more than Reema.  
Altogether they collect £240.  
How much did Reema collect?

ANSWER.....

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