Maths Department

Pre-test Practice Hardest MK1



Name:_____

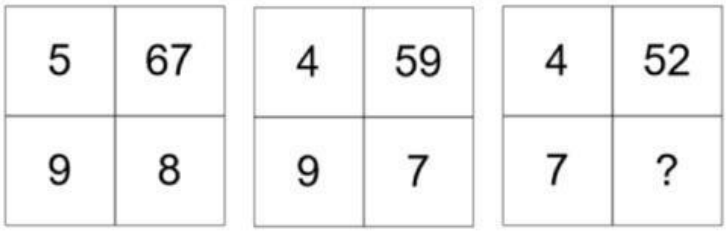
LIVEWORKSHEETS

Question 1

Work out three times a quarter of four times a third of 12.

4	12	24	36	48

Question 2



What is the missing number?

6	8	9	53	54

Question 3

I am a square number. The sum of my digits is my square root. What number am I?

1	9	25	49	81

LIVEWORKSHEETS

Question 4				
172* is a 4-digit number but the last digit has been covered by a *. The number 172* is a multiple of three but not a multiple of two. What is the remainder when the number is divided by 5?				
0	1	2	3	4

Question 5				
What is the lowest prime number to be a the sum of three different prime numbers?				
3	11	17	19	23

Question 6				
a and b are two whole numbers less than ten. If $a^3 = b^2$ what number could a be?				
2	3	4	5	8

LIVEWORKSHEETS

Question 7				
When 2^{100} is calculated, what is the last digit?				
0	2	4	6	8

Question 8				
A number that is equal to the sum of its factors (other than itself) is called a perfect number. For example the factors of 6 are 1,2, 3 and 6 and 1 + 2 + 3 = 6. Which of these is a perfect number?				
25	26	27	28	29

Question 9				
The ages of the three children in my family multiplied together would come to 1001. How old is the oldest child?				
7	11	13	17	19

LIVEWORKSHEETS

Question 10				
Ilya tried to use a calculator to add together two 2 digit numbers. But he pressed x instead and got 325. What was the correct answer to the addition?				
25	32	38	70	More information needed

Question 11				
I have 4 counters numbered 1, 2, 3 and 4. Using each counter only once, what is the largest number I can get if I make them into two 2 digit numbers and multiply them together?				
312	1302	1312	1849	1936

Question 12				
Which set of numbers gives a mean of 7, a median of 6 and a mode of 5?				
4, 15, 5, 6 , 6	5, 5, 7, 7, 11	4, 5, 6, 7, 8	7, 7, 7, 7, 7	7, 6, 5, 5, 12

LIVEWORKSHEETS

Question 13				
A set of 4 numbers has mode 7, median 10 and mean 15. What is the range of the four numbers?				
10	13	17	26	More information needed

Question 14				
 The diagram shows a black and white cubic liquorice allsort with three layers of equal thickness. What fraction of the outside is coloured black?				
$\frac{1}{3}$	$\frac{2}{9}$	$\frac{4}{15}$	$\frac{1}{2}$	$\frac{11}{15}$

Question 15				
Which of these fractions gives 0.36363636… when written as a decimal?				
$\frac{4}{10}$	$\frac{4}{11}$	$\frac{4}{12}$	$\frac{4}{13}$	$\frac{4}{14}$

LIVEWORKSHEETS

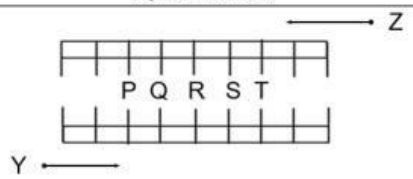
Question 16				
In an army, soldiers eat sandwiches made of square bread with sides ten centimetres. The officers have 5 mm crust cut off all around the bread. What percentage of the area of the bread is removed?				
5	10	19	25	50

Question 17				
Bob damaged his father's greenhouse with a football so his dad cut his pocket money by 20% until the new glass had been paid for. Bob has now paid off his debt. By how much should his dad increase his new pocket money to get back to the original amount?				
20%	25%	33%	50%	80%

Question 18				
Jim, John and Jack have to share out some marbles. The ratio of Jack's marbles to Jim's marbles is 1 : 4. The ratio of Jim's marbles to John's marbles is 2 : 3. What is the ratio of John's marbles to Jack's marbles?				
1 : 2	3 : 1	1 : 6	6 : 1	1 : 8

LIVEWORKSHEETS

Question 19				
Dwight wants to make a huge chocolate cake for 27 people. The recipe for 3 people needs: 100g margarine, 80g sugar, 500g flour, and 65g chocolate chips How many grams of sugar will he need?				
7.20	710	720	780	860

Question 20				
 A train starts at Y travelling at 12 mph as the same time as a train from Z starts at 20 mph. They are travelling toward each other. Where to the trains cross?				
P	Q	R	S	T

LIVEWORKSHEETS