



# MATHS

## BOOKS - SWAN PUBLICATION

### PLAYING WITH NUMBERS

Try These

1. Write the following numbers in generalised form:

25



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2. Write the following numbers in generalised form:

73



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3. Write the following numbers in generalised form:

129





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4. Write the following numbers in generalised form:

302.



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5. Write the following in the usual form:

$10 \times 5 + 6$ .



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6. Write the following in the usual form:

$$100 \times 7 + 10 \times 1 + 8.$$



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7. Write the following in the usual form:

$$100 \times a + 10 \times c + b.$$



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**8.** Check what the result would have been if Sundaram had chosen the numbers shown below.

27



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**9.** Check what the result would have been if Sundaram had chosen the numbers shown below.

39





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**10.** Check what the result would have been if Sundaram had chosen the numbers shown below.

64



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**11.** Check what the result would have been if Sundaram had chosen the numbers shown

below.

17



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**12.** Check what the result would have been if Sundaram had chosen the numbers shown below.

17



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**13.** Check what the result would have been if Sundarm had chosen the numbers shown below.

21



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**14.** Check what the result would have been if Sundarm had chosen the numbers shown below.

96







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**15.** Check what the result would have been if Sundarm had chosen the numbers shown below.

37



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**16.** Check what the result would have been if Minakshi had chosen the numbers shown

below.

132



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**17.** Check what the result would have been if Minakshi had chosen the numbers shown below.

469



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**18.** Check what the result would have been if Minakshi had chosen the numbers shown below.

737



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**19.** Check what the result would have been if Minakshi had chosen the numbers shown below.

901





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**20.** Check what the result would have been if Sundaram had chosen the numbers shown below.

417



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**21.** Check what the result would have been if Sundaram had chosen the numbers shown

below.

632



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**22.** Check what the result would have been if Sundaram had chosen the numbers shown below.

117



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**23.** Check what the result would have been if Sundaram had chosen the numbers shown below.

937



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**24.** If the division  $N \div 5$  leaves a remainder of 3, what might be the ones digit of  $N$ ?



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**25.** If the division  $N \div 5$  leaves a remainder of 4, what might be the ones digit of  $N$  ?



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**26.** If the division  $N \div 2$  leaves a remainder of 1, what might be the one's digit of  $N$  ?



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**27.** If the division  $N \div 2$  leaves a remainder of 1, what might be the one's digit of  $N$  ?



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**28.** If the division  $N \div 5$  leaves a remainder of 1, what might be the ones digit of  $N$ ?



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**29.** Check the divisibility of the following numbers by 9.

108



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**30.** Check the divisibility of the following numbers by 9.

616



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**31.** Check the divisibility of the following number by 6.

294



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**32.** Check the divisibility of the following numbers by 9.

432



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**33.** Check the divisibility of the following numbers by 9.

927



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**34.** Check the divisibility of the following number by 3.

108



**Watch Video Solution**

**35.** Check the divisibility of the following numbers by 9.

616



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**36.** Check the divisibility of the following number by 3.

294



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**37.** Check the divisibility of the following number by 3.

432



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**38.** Check the divisibility of the following number by 3.

927



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## Do This

1. Write a 2-digit number  $ab$  and the number obtained by reversing its digits i.e.,  $ba$ . Find their sum. Let the sum be a 3-digit number  $dad$  i.e.,  $ab + ba = dad$

$$(10a + b) + (10b + a) = dad$$

$$11(a + b) = dad$$

The sum  $a+b$  can not exceed 18(Why?)

Is  $dad$  a multiple of 11 ?

Is  $dad$  less than 198?

Write all the 3-digit numbers which are

multiples of 11 upto 198. Find the value of a and d.



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## Think Discuss And Write

1. You have seen that a number 450 is divisible by 10 .It is also divisible by 2 and 5 which are factors of 10.Similarly,a number 135 is divisible by 9.It is also divisible by 3 which is a factor of 9.

Can you say that if a number is divisible by any number  $m$ , then it will also be divisible by each of the factors of  $m$ ?



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2. Write a 3-digit number  $abc$  as  $100a+10b+c$   
 $=99a+11b+(a-b+c)=11(9a+b)+(a-b+c)$

If the number  $abc$  is divisible by 11, then what can you say about  $(a-b+c)$ ?

Is it necessary that  $(a+c-b)$  should be divisible by 11?





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3. Write a 4-digit number  $abcd$  as

$$1000a+100b+10c+d=(1001a+99b+c)-(a-b+c-d)$$

If the number  $abcd$  is divisible by 11, then what can you say about  $[(b+d)-(a+c)]$ ?



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4. From (i) and (ii) above, can you say that a number will be divisible by 11 if the difference between the sum of digits at its odd places

and that of digits at the even places is divisible by 11?.



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## Exercise 1

1. Find the values of the letters in each of the following and give reasons for the steps

involved.

$$\begin{array}{r} 3A \\ + 25 \\ \hline B2 \\ \hline \end{array}$$



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2. Find the values of the letters in each of the following and give reasons for the steps

involved.

$$\begin{array}{r} 4A \\ + 98 \\ \hline \underline{CB2} \end{array}$$



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**3.** Find the values of the letters in each of the following and give reasons for the steps

involved.

$$\begin{array}{r} 1A \\ \times A \\ \hline 9A \\ \hline \end{array}$$



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4. Find the values of the letters in each of the following and give reasons for the steps involved.



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5. Find the values of the letters in each of the following and give reasons for the steps involved.





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6. Find the values of the letters in each of the following and give reasons for the steps involved.



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7. Find the values of the letters in each of the following and give reasons for the steps

involved.



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**8.** Find the values of the letters in each of the following and give reasons for the steps involved.



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**9.** Find the values of the letters in each of the following and give reasons for the steps involved.



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**10.** Find the values of the letters in each of the following and give reasons for the steps involved.





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## Exercise 2

1. If  $21y5$  is a multiple of 3, where  $y$  is a digit, what is the value of  $y$ .



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2. If  $31z5$  is a multiple of 3, where  $z$  is a digit, what might be the value of  $z$ .



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3. If  $24x$  is a multiple of 3, where  $x$  is a digit, what is the value of  $x$ ?



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4. If  $31z5$  is a multiple of 3, where  $z$  is a digit, what might be the value of  $z$ ?



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