MATHS

Playing withNumbers

1. A factor of a number is an exact divisor of thatnumber.
2. A number is said to be a multiple of any of itsfactors.
3. 1 is a factor of everynumber.
4. Every number is a factor ofitself.
5. Every number is a multiple ofitself.
6. All multiplies of 2 are called even numbers.
7. Numbers which are not multiplies of 2 are called oddnumbers.
8. A number which is equal to the sum of all its factors other than itself is called a perfectnumber.
9. Numbers which have exactly two factors, namely 1 and itself, are called primenumbers.
10. Numbers having more than two factors are known as compositenumbers.
11. Two consecutive odd prime numbers are known as twin-primes.
12. Two numbers are said to be co-prime if they do not have a common factor, other than1.
13. Test for divisibility by 2: A number is divisible by 2, if its unit place digit is 0, 2, 4, 6 or8.
14. Test for divisibility by 3: A number is divisible by 3, if the sum of its digits is divisible by3.
15. Test for divisibility by 4: A number is divisible by 4, if the number formed by its digits in tens andunits place is divisible by4.
16. Test for divisibility by 5: A number is divisible by 5, if its unit's digit is 0 or5.
17. Test for divisibility by 6: A number is divisible by 6, if it is divisible by both 2 and3.
18. Test for divisibility by 8: A number is divisible by 8, if the number formed by its digits in hundreds, tens and units places is divisible by8.
19. Test for divisibility by 9: A number is divisible by 9, if the sum of its digits is divisible by9.
20. Test for divisibility by 10: A number is divisible by 10, if its unit's digit iszero.
21. Test for divisibility by 11: A number is divisible by 11, if the difference of the sum of its digits in odd places and sum of its digits in even places (starting from unit's place) is either 0 or a multiple of11.
22. If two numbers are divisible by a number then their sum and difference are also divisible by that number.

23. If a number is divisible by two co-prime numbers then it is divisible by their productalso.

24. Every composite number can be factorised into primes in only one way, except, for the order of primes. This property is known as prime factorisationproperty.

25. The smallest of all common multiples is called least common multiple(LCM).

26. The highest common factor (HCF) of two or more numbers is the largest number that is a factor of all of the given numbers.

27. The product of the HCF and LCM of two numbers is equal to the product of thenumbers.