

Chapter 3 : Chinglaiphaba, The Dragon Slayer

Curricular Goal :

CG-1 The goal of this lesson is to enable the students to understand numbers and set of numbers, looks for patterns and appreciates relationship between numbers.

Competencies :

C-1.2 The students should be able to discover, identify and explore patterns in numbers and describe rules for their formation and explain relations between different patterns.

Learning Outcomes :

At the end of this lesson students will be able to find factors and multiples of a number, solve problems on prime and composite numbers.

CHAPTER 3

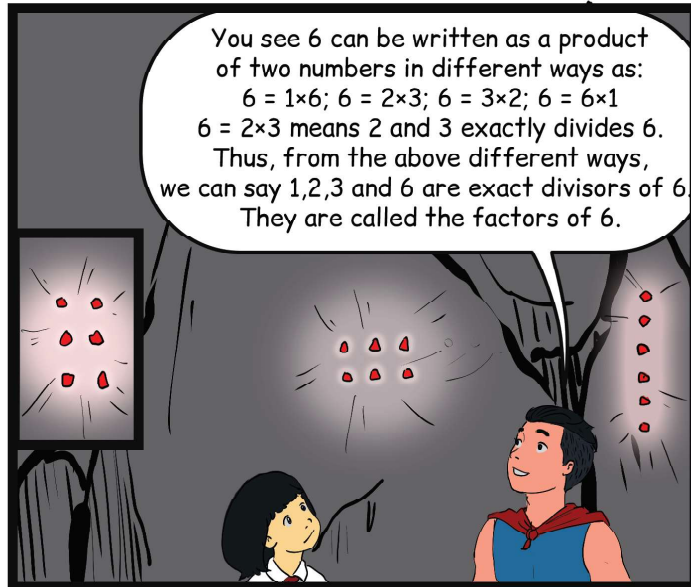
CHINGLAIPHABA-THE DRAGON SLAYER



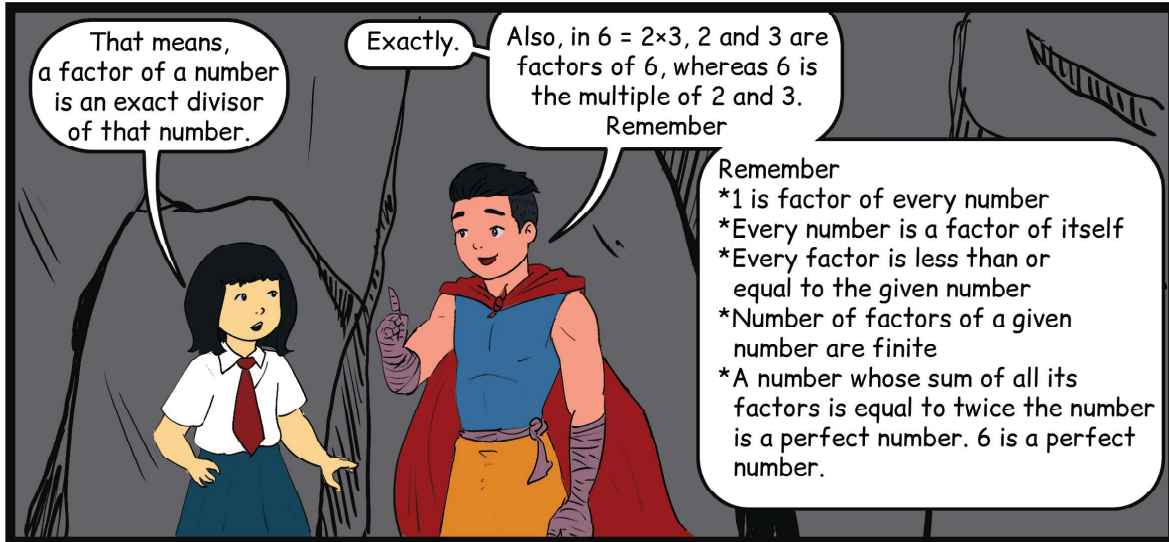




These stones have special powers. Gemstones, turn yourselves into factor-stones!



You see 6 can be written as a product of two numbers in different ways as:
 $6 = 1 \times 6$; $6 = 2 \times 3$; $6 = 3 \times 2$; $6 = 6 \times 1$
 $6 = 2 \times 3$ means 2 and 3 exactly divides 6.
Thus, from the above different ways, we can say 1, 2, 3 and 6 are exact divisors of 6. They are called the factors of 6.



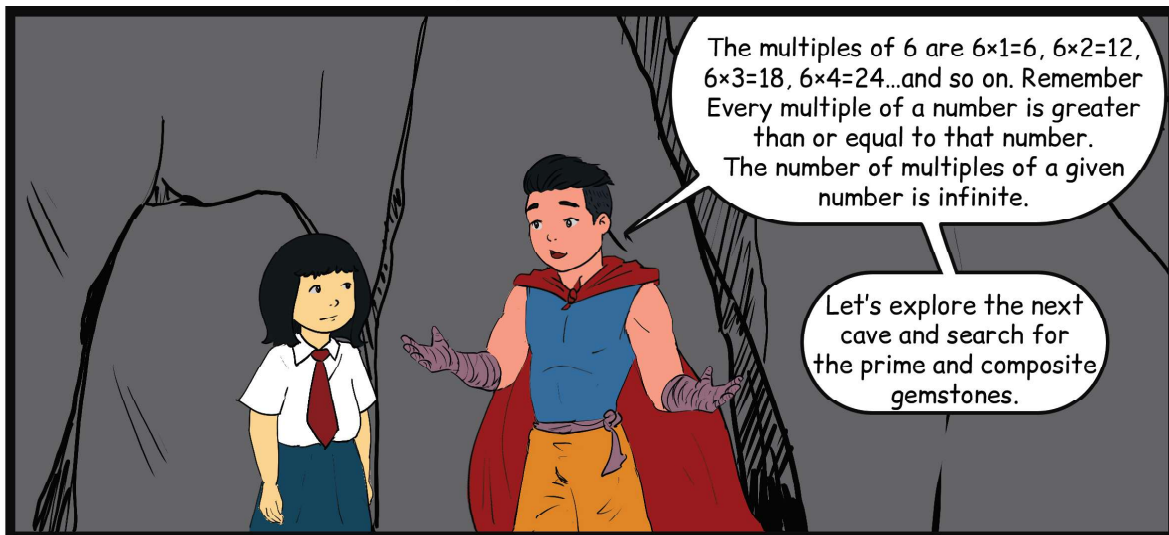
That means, a factor of a number is an exact divisor of that number.

Exactly.

Also, in $6 = 2 \times 3$, 2 and 3 are factors of 6, whereas 6 is the multiple of 2 and 3.
Remember

Remember

- *1 is factor of every number
- *Every number is a factor of itself
- *Every factor is less than or equal to the given number
- *Number of factors of a given number are finite
- *A number whose sum of all its factors is equal to twice the number is a perfect number. 6 is a perfect number.

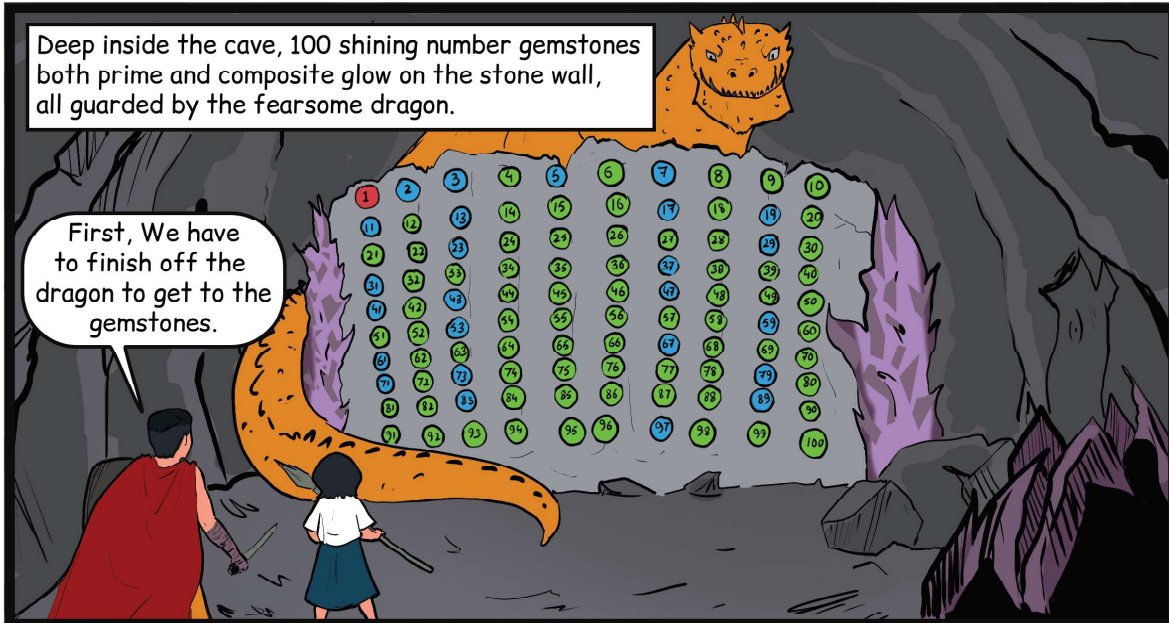


The multiples of 6 are $6 \times 1 = 6$, $6 \times 2 = 12$, $6 \times 3 = 18$, $6 \times 4 = 24$...and so on. Remember Every multiple of a number is greater than or equal to that number. The number of multiples of a given number is infinite.

Let's explore the next cave and search for the prime and composite gemstones.

Deep inside the cave, 100 shining number gemstones both prime and composite glow on the stone wall, all guarded by the fearsome dragon.

First, We have to finish off the dragon to get to the gemstones.



Chinglaiphaba attacks the dragon with his sword and shield. Lingjel hides herself behind a boulder with the spear.



Lingjel throws the spear at the dragon...



Yeah! I have killed the dragon.

You are really brave. Let's collect the gemstones. All the blue gemstones are the prime stones. All the green gemstones are the composite stones.





ACTIVITY

1. Write all the factors of
(a) 24 (b) 36.
2. Write the first 5 multiples of
(a) 7 (b) 12
3. Find all the prime numbers less than 40.
4. Find seven consecutive composite numbers less than 100 with no prime number between.
5. Write three pairs of prime numbers whose difference is 2.