

ARITHMETIC SEQUENCES WORD PROBLEM

If John has 40 oranges and he eats 2 oranges per day
when will the oranges of John finish

let the day the oranges finish be x

2 oranges: 1 day

4 oranges : 2 days

6 oranges : 3 days

This is a linear sequence

2, 4, 6, ..., 40

the constant difference is 2

$$T_n = a + (n-1)d$$

$$T_n = 2 + (n-1)2$$

$$T_n = 2 + 2n - 2$$

$$T_n = 2n$$

$$T_n = 40 \text{ oranges}$$

$$40 = 2n$$

divide both sides by 2

$$\text{then } n = 40/2$$

$$n = 20 \text{ days}$$

Therefore the oranges of John will last for 20 days provided he eats 2 oranges per day

As a learner/student you must make sure that you know how to use mathematics in real life.

Mathematics is fun when you know how to apply it in real life

Mathematics is all around us.