

1. Create a four-digit number with the following rules

- It should end with an even number
- The last two digits should be divisible by four
- The sum of all the digits should be equal to nine

- a. List 7 factors of the number

- b. Write the number as a product of its prime factors.

- c. Is it a perfect square, cube or neither?

2. Given the relationship;

$$4^2 = 2^c$$

What number is c ?

3. Calculate the value of the expression correct to two decimal places

$$\frac{3^2 - 4.5}{4}$$

4. Common multiples of a set of numbers are the _____ of the L.C.M. Write below four common multiples of 4 and 5;

5. Find a sequence of four consecutive numbers none of which is prime

6. A farmer intends planting 63 tomato plants in identical rows. If each row must contain same number of tomato plants, what are the different number of rows Lee can plant.

7. A radio station is having a promotion in which every 12th caller receives a free concert ticket and every 15th caller receives a limo ride. Which caller will be the first one to win both?



8. A square floor mat has length of 4.3 units. How much area does the mat cover?

$$\text{Area} = \text{length}^2$$

9. Another square mat has area of 576 cm².

- a. Work out the side length of the mat.

- b. Work out the perimeter of the mat.
