Check Up

1. For the number 10,

    a. state all multiples up to 50.

    b. list all whole number factors.

    c. state the prime factors and explain why they are prime numbers.

2. The factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18, and 36. The prime factors of 36 are 2 and 3.

    a. Why is 1 not considered a prime factor?

    b. Why are numbers such as 4, 6, 9, 12, 18, and 36 considered composite factors?

3. Why is 0 neither prime nor composite?

☑ Compare your answers.

1. For the number 10,

   a. state all multiples up to 50.

      10, 20, 30, 40, 50

   b. list all whole number factors.

      1, 2, 5, 10

   c. state the prime factors and explain why they are prime numbers.

      The factors 2 and 5 are prime factors because both have exactly two factors, $1 \times 2 = 2$ and $1 \times 5 = 5$.

2. The factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18, and 36. The prime factors of 36 are 2 and 3.

   a. Why is 1 not considered a prime factor?

      The number 1 has only one factor and prime factors always have exactly two factors.

   b. Why are numbers such as 4, 6, 9, 12, 18, and 36 considered composite factors?

      These numbers have more than two factors each. For instance, 4 has factors of 1, 2, and 4, so it is a composite number.

3. Why is 0 neither prime nor composite?

   Zero has an infinite number of factors. Zero multiplied by any number is 0. As such, zero is neither prime, nor composite.