NAME	DATE

#### **EQUAL, EQUIVALENT and EMPTY SETS**

#### **Activity 4**

**Equal sets** have the **same elements.** E.g. {2, 3, 5, 6} and {6,3,2,5}

Equivalent sets have the same number of elements. E.g. {1, 2, 3, 4,5} and {a, b, c, d, e}

Empty or null sets have zero elements. E.g. {days of the week beginning with 'p'}

# A. State which of the sets are empty, equal, or equivalent.

- 1. {m, o, m} and {4, 5, 6}
- 2. {8, 6, 7, 13} and {6, 7, 8,11} \_\_\_\_\_
- 3. {vowels} and {a, e, i, o, u} \_\_\_\_\_
- 4. { multiples of 12 between 13 and 23} =
- 5. {children who have travelled to the moon} = \_\_\_\_\_

#### The CARDINALITY of a set is the number of elements belonging to the set.

- e. g.  $V = \{vowels\}$  and  $V = \{a, e, i, o, u\}$  Therefore, no. of elements in V, n(V) = 5
- e. g. P = {parrot, penguin, pigeon} Therefore, no. of elements in P, n(P) = 3

### B. State the cardinality for the following sets.

(Click the down arrow in the space to access the choices.)

- 1. F = {players on a football team} , n(F) = \_\_\_\_\_
- 2. M = {Mazda, Toyota, Mercedes, Kia, Volvo}, n(M) = \_\_\_\_\_
- 3. N = {1, 2, 3, 4, 6, 8, 12, 24}, n(N) =
- 4. F = {portugal, cherry, mango}, n(F) = \_\_\_\_\_
- 5. J = { 1,4,9,16,25,36,49,64,81}, n(J) = \_\_\_\_\_

# **#LIVEWORKSHEETS**