Identifying and Understanding Venn Diagram Sets **Answers**
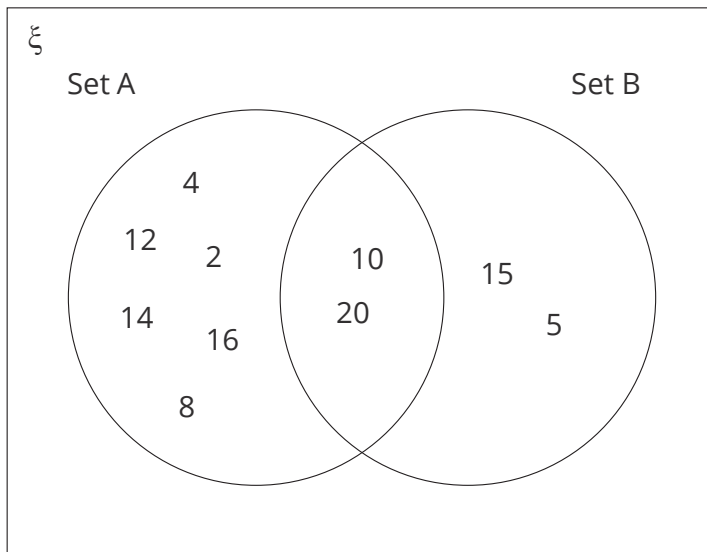
1. The Venn diagram shows some information about sets A and B.

ξ

Set A   Set B

4
12
2   10   15
14   20
16   5
8

a. Write down the elements in set A.

   2, 4, 8, 10, 12, 14, 16 and 20 or

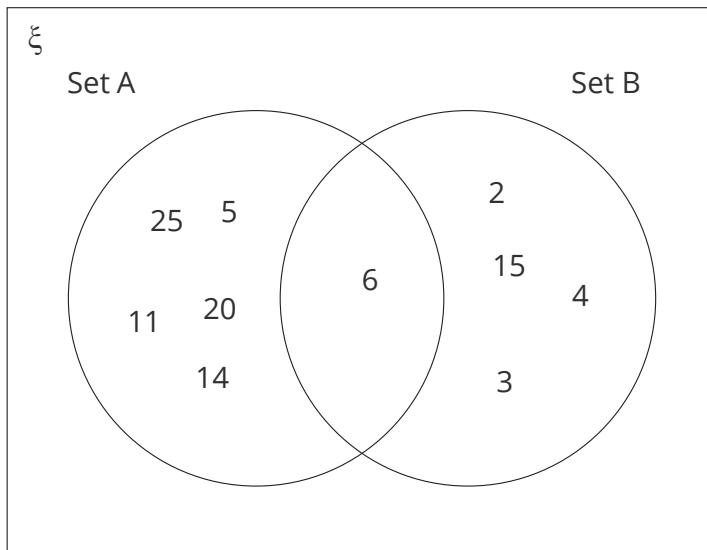   **A = {2, 4, 8, 10, 12, 14, 16, 20}**

b. Write down the elements that are in both set A and B.

   10 and 20

c. How many elements are in set B?

   4

2. The Venn diagram shows some information about sets A and B.

ξ

Set A   Set B

25   5   2
6   15
11   20   4
14   3

a. Write down the elements in set B.

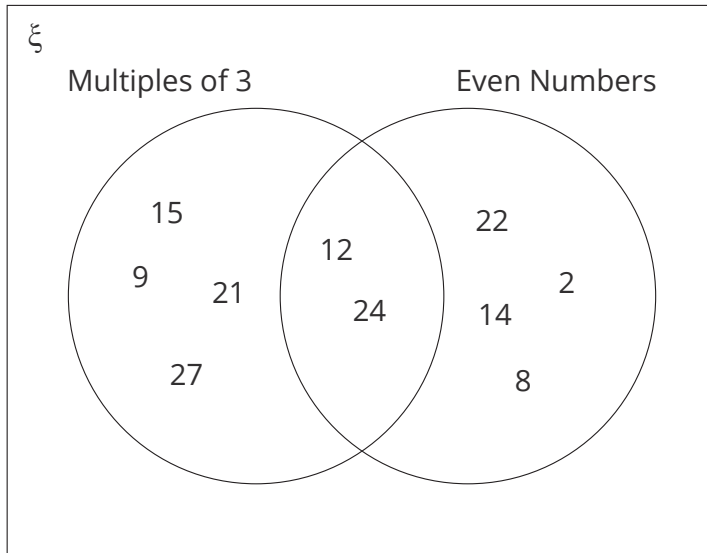   **2, 3, 4, 6, 15 or B = {2, 3, 4, 6, 15}**

b. How many elements are in both set A and B?

   1

c. How many elements are in set A?

   6

3. The Venn diagram shows some information about two sets.

ξ

Multiples of 3   Even Numbers

15

12

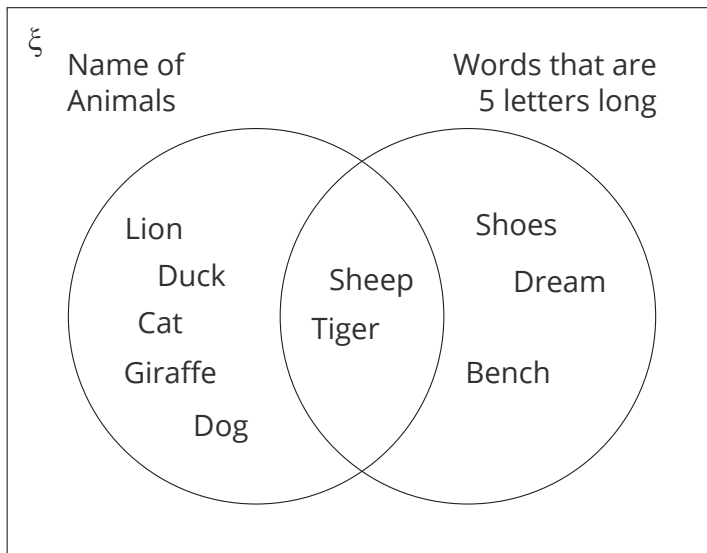9   21

24

22

2

14

27

8

a. Write down all the multiples of 3 shown in the Venn diagram.

   9, 12, 15, 21, 24, 27

b. Write down two even multiples of 3.

   12 and 24

4. The Venn diagram shows some information about two sets.

ξ

Name of Animals   Words that are 5 letters long

Lion

Duck

Cat

Giraffe

Dog

Sheep

Tiger

Shoes

Dream

Bench

a. How many words are 5 letters long?

   5

b. Write down the elements in set A. Use the form A = {names of animals}.

   A = {cat, dog, duck, giraffe,

   lion, sheep, tiger}

5. A is the set of square numbers between 20 and 50. Write the information out in full, using set notation.

   A = {**25, 36, 49**}

BEYOND MATHS

6. Write out the following sets in full:

    ξ = {months of the year}

    ξ = {January, February, March, April, May, June, July, August, September, October, November, December}

    A = {months beginning with a J}

    A = {January, June, July}

    B = {months with a letter R in the name}

    B= {January, February, March, April, September, October, November, December}

7. Write out the following sets in full:

    ξ = {days of the week}

    ξ = {Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday}

    A = {days beginning with a T}

    A = {Tuesday, Thursday}

    B = {days with a letter E in the name}

    B = {Tuesday, Wednesday}

8. Write out the following sets in full:

    ξ = {the first 10 multiples of 7}

    ξ = {7, 14, 21, 28, 35, 42, 49, 56, 63, 70}

    A = {multiples less than 50}

    A = {7, 14, 21, 28, 35, 42, 49}

    B = {even numbers}

    B = {14, 28, 42, 56, 70}

9. If ξ = {football, netball, swimming, rugby, snooker, running, cricket}, write out the following sets in full:

A = {ball games}

A = {football, netball, rugby, snooker, cricket}

B = {activities that can involve running}

B = {football, netball, rugby, running, cricket}

10. Write out the following sets in full:

ξ = {positive whole numbers less than 20}

ξ = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19}

A = factors of 48

A = {1, 2, 3, 4, 6, 8, 12, 16}

B = cube numbers

B = {1, 8}

C = even numbers

C = {2, 4, 6, 8, 10, 12, 14, 16, 18}