

# Find and understand the union of 2 sets

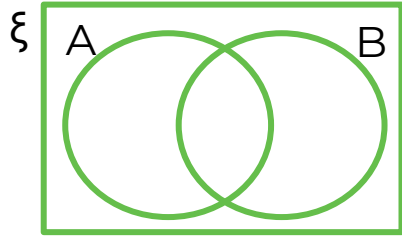
Maths

Mrs Dennett



# Find and understand the union of 2 sets

1. Here is a Venn Diagram.



Shade the section of the diagram represented by  $A \cup B$ .

2.  $\xi = \{1 \text{ to } 24 \text{ inclusive}\}$

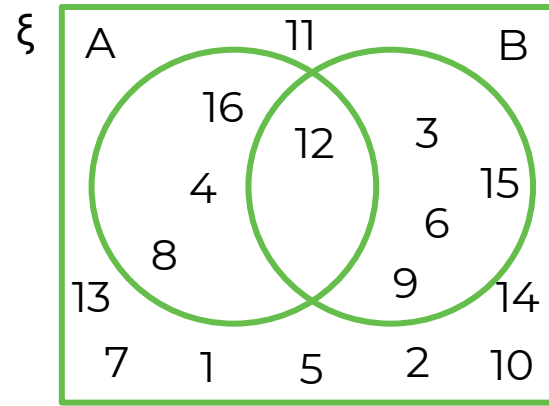
$A = \{\text{Odd numbers}\}$

$B = \{\text{Factors of } 24\}$

a) Show the information in a Venn diagram.

b) List the members of set  $A \cup B$ .

3. Here is a Venn diagram.



a) List the members of set B

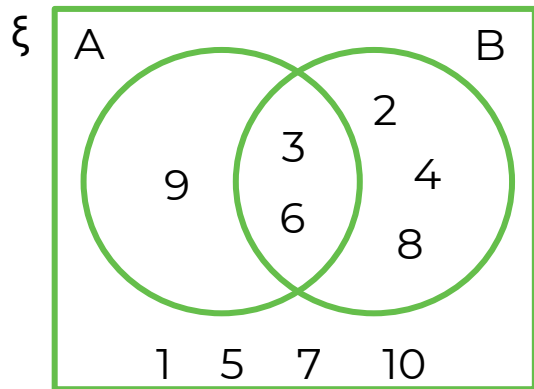
b) List the members of set  $A \cap B$

c) List the members of set  $A \cup B$



# Find and understand the union of 2 sets

4. Here is a Venn diagram.



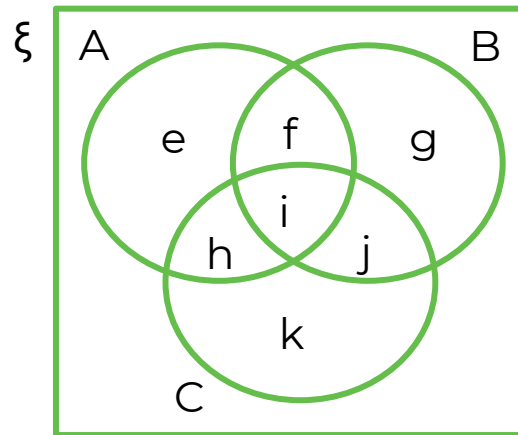
Which of the statements are incorrect?  
Explain your reasoning.

Set A only has the number 9

$A \cup B$  only has the numbers 2, 4, 8 and 9

$A \cap B$  only has the numbers 3 and 6

5. Here is a Venn diagram.



List the elements of

a)  $A \cup B$

b)  $A \cap B \cap C$

c) Which element(s) would be in set  
 $(A \cup B) \cap C$ ?

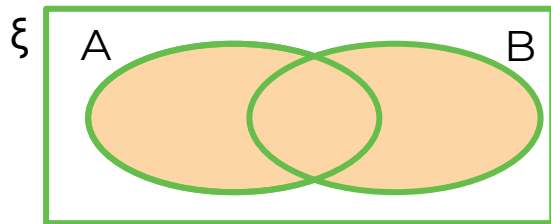


# Answers



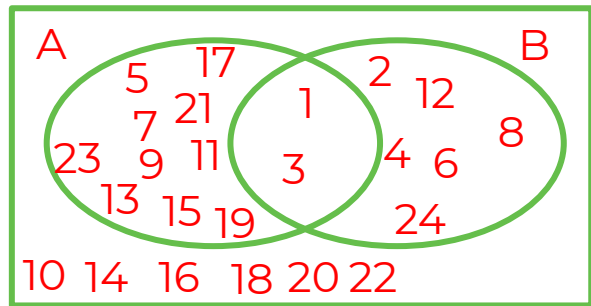
# Find and understand the union of 2 sets

1. Here is a Venn Diagram.

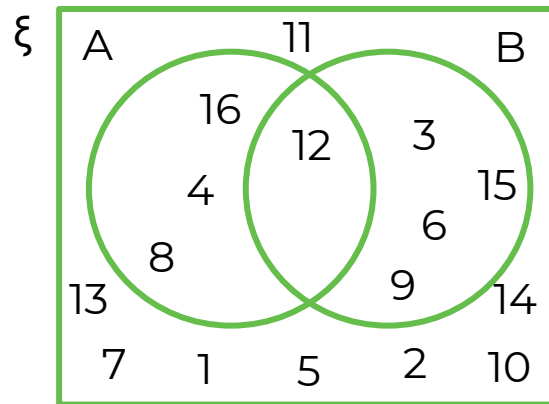


Shade the section of the diagram represented by  $A \cup B$ .

2. a) Show the information in a Venn diagram.



3. Here is a Venn diagram.



a) List the members of set B  $B = \{3, 6, 9, 12, 15\}$

b) List the members of set  $A \cap B$   $A \cap B = \{12\}$

c) List the members of set  $A \cup B$

$A \cup B = \{3, 4, 6, 8, 9, 12, 15, 16\}$

b) List the members of set  $A \cup B$   $A \cup B = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 15, 17, 19, 21, 23, 24\}$



# Find and understand the union of 2 sets

4. Here is a Venn diagram.

Which of the statements are incorrect?  
Explain your reasoning.

Set A only has the number 9.

Incorrect  $A = \{3, 6, 9\}$

$A \cup B$  only has the numbers 2, 4, 8 and 9

Incorrect  $A \cup B = \{2, 3, 4, 6, 8, 9\}$

$A \cap B$  only has the numbers 3 and 6

Correct

5. Here is a Venn diagram.

List the elements of:

a)  $A \cup B$   $\{e, f, g, h, i, j\}$

b)  $A \cap B \cap C$   $\{i\}$

c) Which element(s) would be in set  
 $(A \cup B) \cap C$ ?  $\{h, i, j\}$

