



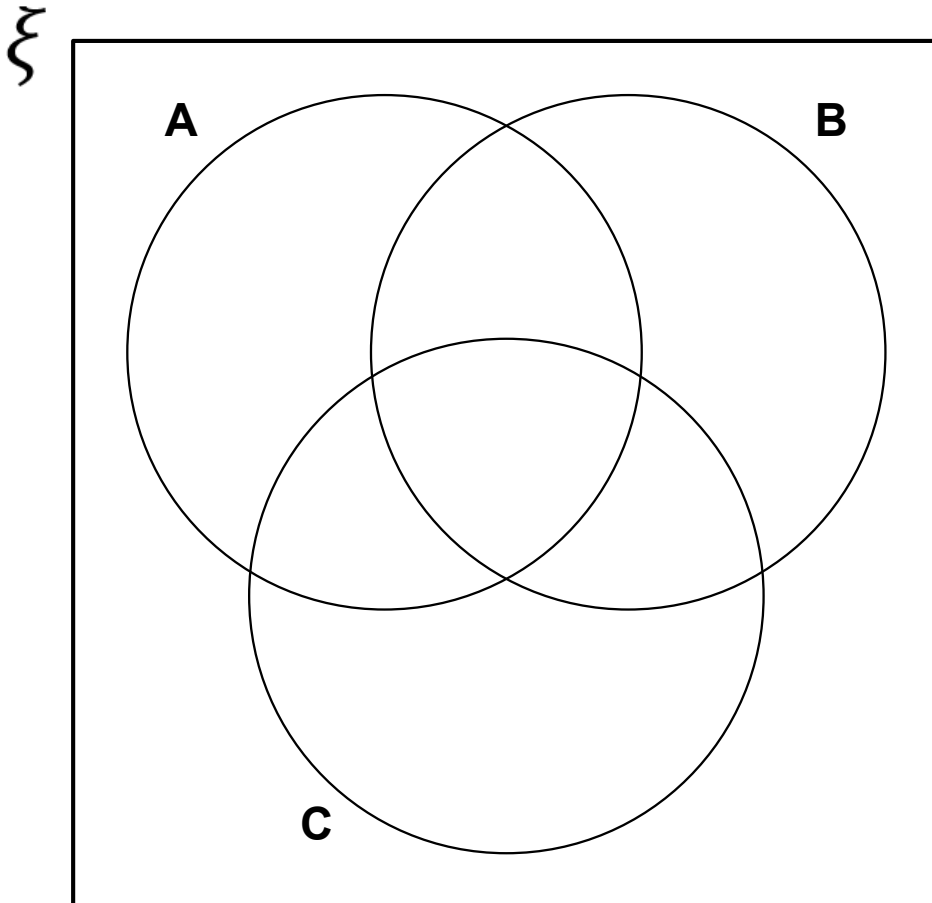
Venn Diagrams

$\xi = \{\text{All numbers between 1 and 30 inclusive}\}$

$A = \{\text{Prime Numbers}\}$

$B = \{\text{Square Numbers}\}$

$C = \{\text{Odd Numbers}\}$



- a Complete the Venn diagram above.
- b Find $P(A \cap B)$
- c Find $P(A \cup C)$
- d Find $P(B')$
- e Find $P(A \cap C')$
- f Find $P(A \cap (B \cup C))$



Two Way Tables

The Council did a Survey of three streets within their borough examining what type of heating systems were in place. In total, the Council examined 131 properties.

There were four types of heating system: Heat pumps, Radiators, Log Burners and Stoves.

The three streets were called Cotswold Drive, Hill Street and York Avenue.

Twenty-five of the forty-three properties on Cotswold Drive had radiators as their primary source of heating.

York Avenue had 18 properties with radiators fitted.

Coal fires were the primary source of heat in six properties on Hill Street and eleven properties on York Avenue.

In total, there were an equal number of properties on Hill Street and York Avenue.

In all the properties, there were just 14 that had heat pumps. Of these, four were on Hill Street.

There were three properties with heat pumps on Cotswold Drive, just as there were three properties with stoves on Hill Street.

Eight of the eighteen properties that had stoves were on York Avenue.

Complete the two way table below.

A property is selected at random. What is $P(\text{Radiators} \cap \text{York Avenue})$

A property on Hill Street is selected. What is $P(\text{Heat Pump} \cup \text{Stove})$