

Solutions

Marking: **M1** a correct method, **A1** the correct answer.

Each answer shows the steps, then the **result**.

2.1

- $A \cap B$ is the elements in **both**
- **$\{2, 4\}$**

2.2

- $A \cup B$ is the elements in A or B or both
- **$\{1, 2, 3, 4, 6, 8\}$**

2.3

- $A' = \{5, 6, 7, 8\}$
- $n(A') = 4$

3.1

(a)

- $P = \{3, 6, 9, 12\}$, $Q = \{1, 2, 3, 4, 6, 12\}$
- **$P \cap Q = \{3, 6, 12\}$**

(b)

- $P \cup Q = \{1, 2, 3, 4, 6, 9, 12\}$
- **$n(P \cup Q) = 7$**

3.2

- $A \cap B'$ is the part of circle A **outside** the overlap
- the elements that are in A but **not** in B