

**Review:** Probability exam problems

**1.** [6 marks]

Celeste wishes to hire a taxicab from a company which has a large number of taxicabs.

The taxicabs are randomly assigned by the company.

The probability that a taxicab is yellow is 0.4.

The probability that a taxicab is a Fiat is 0.3.

The probability that a taxicab is yellow or a Fiat is 0.6.

Find the probability that the taxicab hired by Celeste is **not** a yellow Fiat.

**2a.** [2 marks]

Let  $A$  and  $B$  be independent events, where  $P(A) = 0.3$  and  $P(B) = 0.6$ .

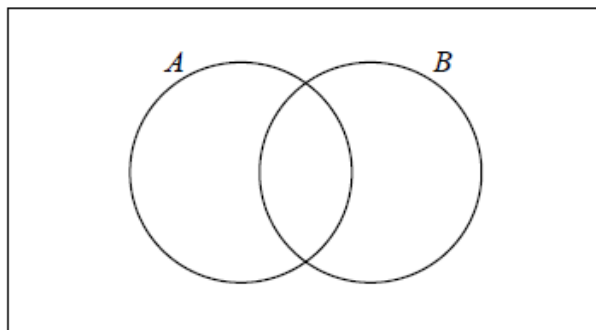
Find  $P(A \cap B)$ .

**2b.** [2 marks]

Find  $P(A \cup B)$ .

**2c.** [1 mark]

On the following Venn diagram, shade the region that represents  $A \cap B'$ .



**2d.** [2 marks]

Find  $P(A \cap B')$ .