Name:

**Do Now:** 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  $\mathrm{P}(A)=0.3$  and  $\mathrm{P}(B)=0.6$  .

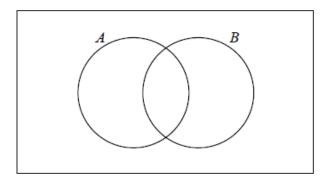
Find 
$$P(A \cap B)$$
.

#### **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]

$$_{\mathrm{Find}}\mathrm{P}(A\cap B')$$