

1. Bag **A** contains 5 red, 4 yellow and 3 green beads.

Bag **B** only contains red and yellow beads.

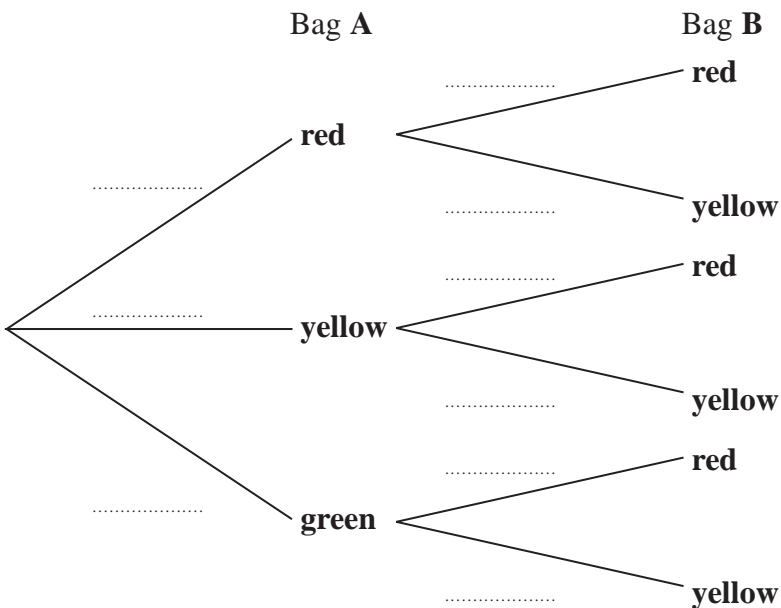
A bead is selected at random from bag **A** and a second bead is selected at random from bag **B**

Given that the probability that both beads selected are yellow is $\frac{3}{16}$

(a) (i) find the probability of selecting a yellow bead from bag **B**

(2)

(ii) Hence complete the tree diagram below by finding the probability on each branch.



(2)

(b) Find the exact probability that at least one of the two beads selected is yellow.

(3)

The event X is that at least one of the beads selected is yellow.

The event W is that a green bead is selected.

(c) Find the exact value of $P(W|X)$

(2)