a) A running club has a large number of members. 80% of the members are over 25 years old. If a member is over 25 years old, the probability that they will agree to compete is 0.7. If a member is less than 25 years old, the probability that they will agree to compete is 0.95 A member of the club is chosen at random to compete. Calculate the probability that they will agree to compete.	a) A running club has a large number of members. 80% of the members are over 25 years old. If a member is over 25 years old, the probability that they will agree to compete is 0.7. If a member is less than 25 years old, the probability that they will agree to compete is 0.95 A member of the club is chosen at random to compete. Calculate the probability that they will agree to compete.
b) A car-hire company has a large number of hire-cars. 30% of the hire-cars are over 5 years old. If a car is over 5 years old, the probability that it will pass its MOT is 0.6. If a car is less than 5 years old, the probability that it will pass its MOT is 0.92. Sam is asked to take one of the company's cars for its MOT. Calculate the probability that the car passes its MOT.	b) A car-hire company has a large number of hire-cars. 30% of the hire-cars are over 5 years old. If a car is over 5 years old, the probability that it will pass its MOT is 0.6. If a car is less than 5 years old, the probability that it will pass its MOT is 0.92. Sam is asked to take one of the company's cars for its MOT. Calculate the probability that the car passes its MOT.
c) A cake company bakes a large number of cakes. 70% of the cakes are for birthdays. If a cake is a birthday cake, the probability that it has two tiers is $\frac{1}{3}$. If a cake is not a birthday cake, the probability that it has two tiers is $\frac{2}{5}$. Jamie is delivering a cake for the cake company. Calculate the probability that the cake has two tiers.	c) A cake company bakes a large number of cakes. 70% of the cakes are for birthdays. If a cake is a birthday cake, the probability that it has two tiers is $\frac{1}{3}$. If a cake is not a birthday cake, the probability that it has two tiers is $\frac{2}{5}$. Jamie is delivering a cake for the cake company. Calculate the probability that the cake has two tiers.