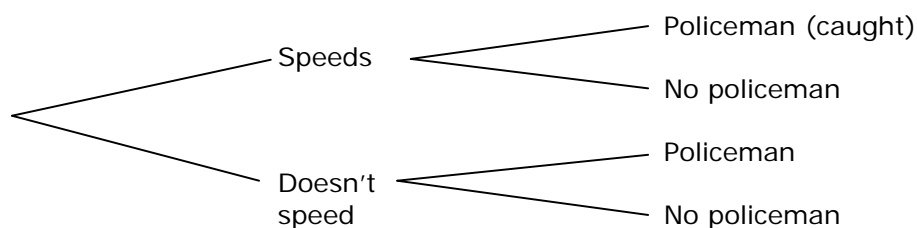


Routine Probability Practice #1

1. Three friends record their results playing *Mario Kart*. You can assume these represent their usual range of results.

	1 st	2 nd	3 rd
Pete	4	3	5
Louis	6	2	4
Robbie	2	7	3

- a) What do you predict is the probability Pete will win the next game?
- b) What is the probability that the last game they played was won by Louis?
2. Bob and Sean want to go surfing at the weekend. The weather forecast is that the probability of a sufficient swell is 60% for Saturday and 70% on Sunday. What is the probability that they will get at least one day of decent swell over the weekend?
3. The soccer coach shouts his winning team KFC. There are 14 in the team, including reserves. 4 got chicken and Pepsi, 5 got chicken and 7-Up, 3 got burgers and Pepsi and the rest wanted burgers and 7-Up.
- a) What is the probability that a randomly selected player got Pepsi?
- b) If a player got 7-Up, what is the probability that he had a burger?
4. Albert speeds on about 12% of days. There is a policeman on traffic duty with a radar gun on 8% of days on the roads he drives. Complete the table below and calculate the probability that Albert is not caught speeding.



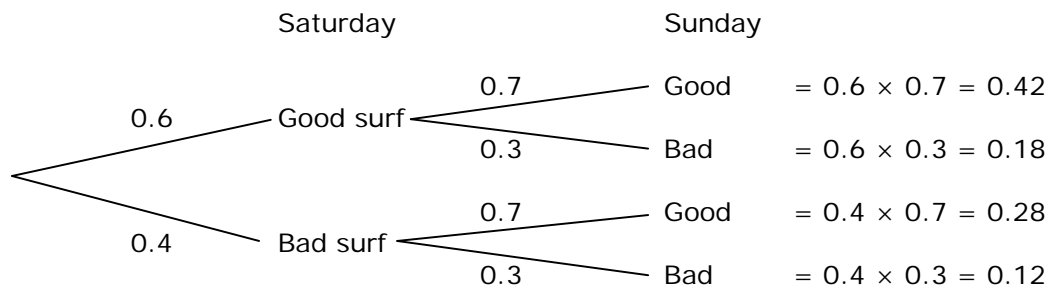
Answers: Routine Probability Practice #1

1.

a) Pete has won 4 out of 12, so you would predict $\frac{4}{12} = \frac{1}{3} = \mathbf{0.3333} = \mathbf{33.3\%}$

b) Louis won 6 out of 12, so you would predict $\frac{6}{12} = \frac{1}{2} = \mathbf{0.5} = \mathbf{50\%}$

2.



$$P(\text{at least one good day}) = 0.42 + 0.18 + 0.28 = \mathbf{0.88} = \mathbf{88\%} = \frac{22}{25}$$

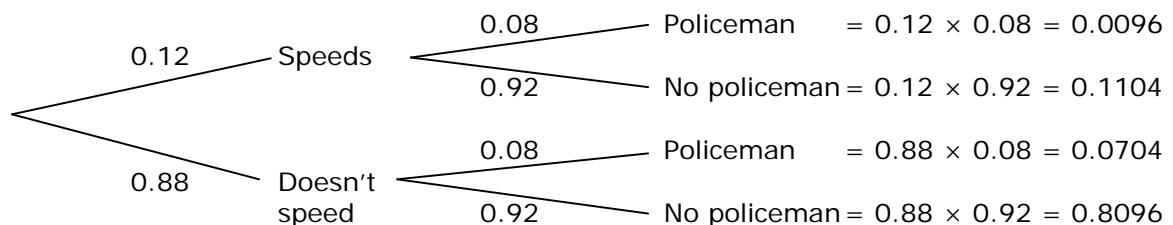
3.

a) 7 got Pepsi (4 with chicken + 3 with burgers) of the 14 = $\frac{7}{14} = \mathbf{0.5} = \mathbf{50\%}$

b) 7 had 7-Up. Of those 5 with chicken + 2 with burgers.

$$\text{So 2 out of 7 of those with 7-Up had burgers} = \frac{2}{7} = \mathbf{0.2857} = \mathbf{28.6\%}$$

4. Albert speeds on about 12% of days. There is a policeman on traffic duty with a radar gun on 8% of days on the roads he drives. Complete the table below and calculate the probability that Albert is not caught speeding.



$$\text{Results with no cop and no speeding} = 0.1104 + 0.0704 + 0.8096 = \mathbf{0.9904} = \mathbf{99.04\%}$$