

Name:

Class/Set:

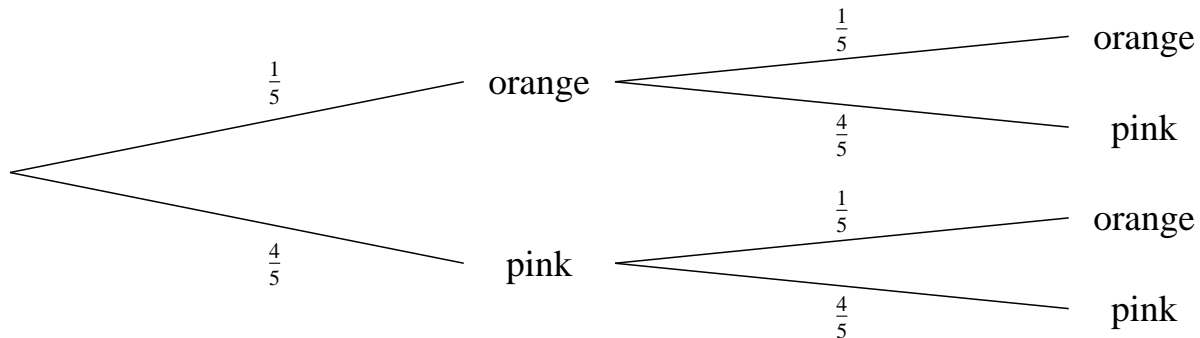
# Tree Diagrams - Independent Events

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1: A spinner has 1 orange section and 4 pink sections (all equal).

It is spun twice.

Use this tree diagram to answer the following:



a) What is the probability of getting orange twice?

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b) What is the probability of not getting orange twice?

\_\_\_\_\_

c) What is the probability of getting the same colour twice?

\_\_\_\_\_

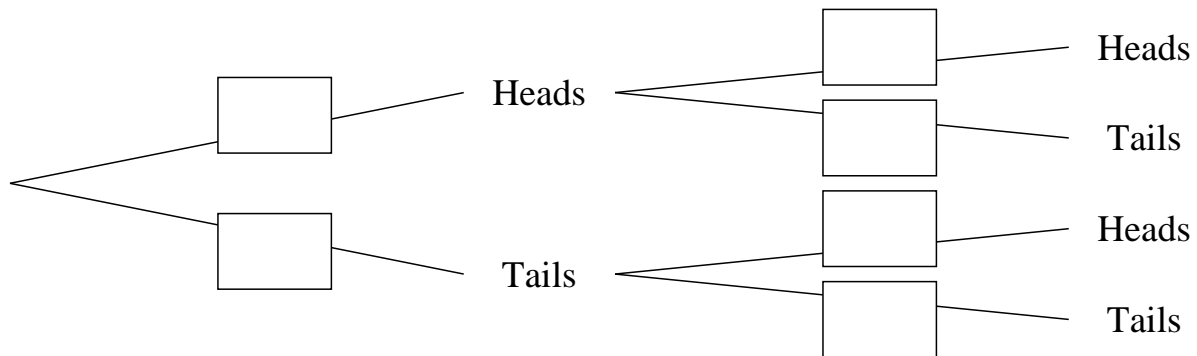
d) What is the probability of getting different colours?

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2: The probability of a biased coin landing Heads up is 0.9.

It is tossed twice.

Complete this tree diagram and hence answer the following:



a) What is the probability of getting Tails twice?

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b) What is the probability of not getting Tails twice?

\_\_\_\_\_

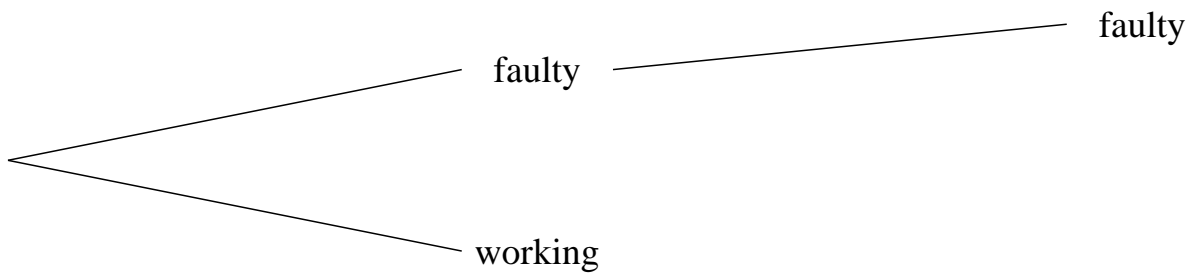
c) What is the probability of getting the same result twice?

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d) What is the probability of getting Heads exactly once?

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3: The probability of a certain type of TV being faulty is 0.29.  
Two TVs are selected at random.  
Complete this tree diagram and hence answer the following:



a) What is the probability of getting two faulty TVs?

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b) What is the probability of not getting two faulty TVs?

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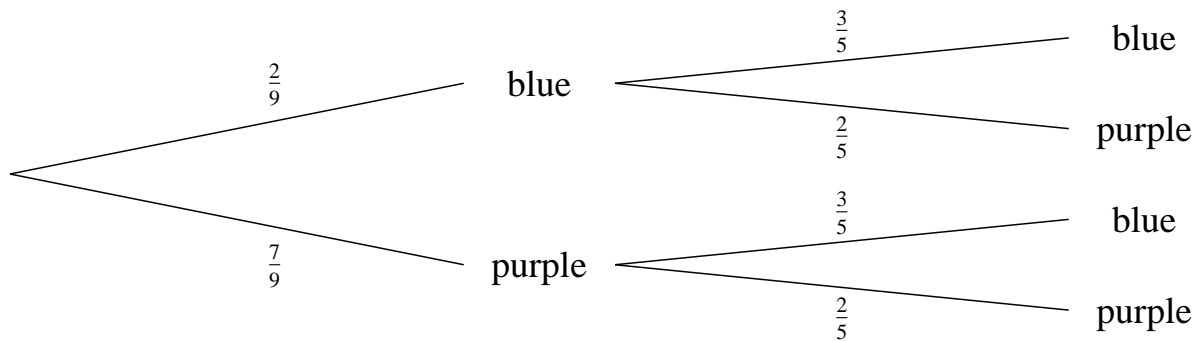
c) What is the probability of getting exactly one faulty TV?

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d) What is the probability of not getting exactly one faulty TV?

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- 4: One drawer contains 2 blue socks and 7 purple socks.  
 A second drawer contains 3 blue socks and 2 purple socks.  
 A sock is chosen at random from each drawer.  
 Use this tree diagram to answer the following:



- a) What is the probability of getting two blue socks?

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- b) What is the probability of getting purple at least once?

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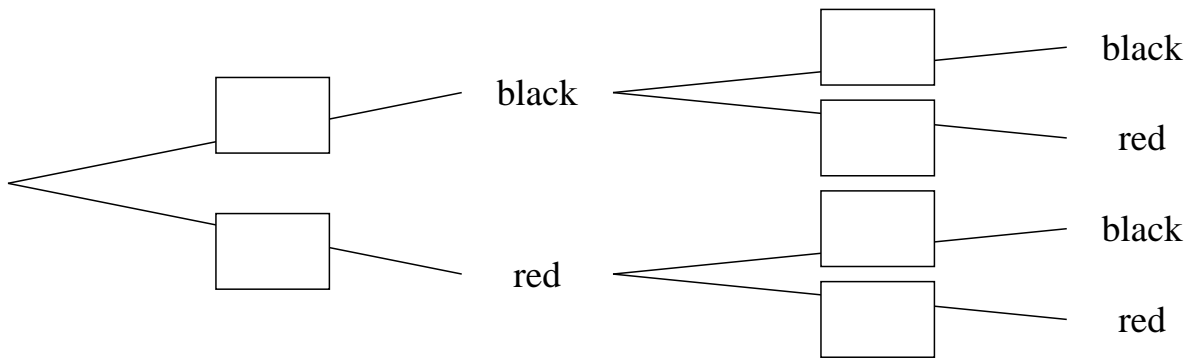
- c) What is the probability of getting two socks of different colours?

\_\_\_\_\_

- d) What is the probability of getting two socks of the same colour?

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5: One spinner has 5 black sections and 5 red sections (all equal).  
 Another spinner has 1 black section and 5 red sections (all equal).  
 Complete this tree diagram and hence answer the following:



a) What is the probability of getting red twice?

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b) What is the probability of getting black at least once?

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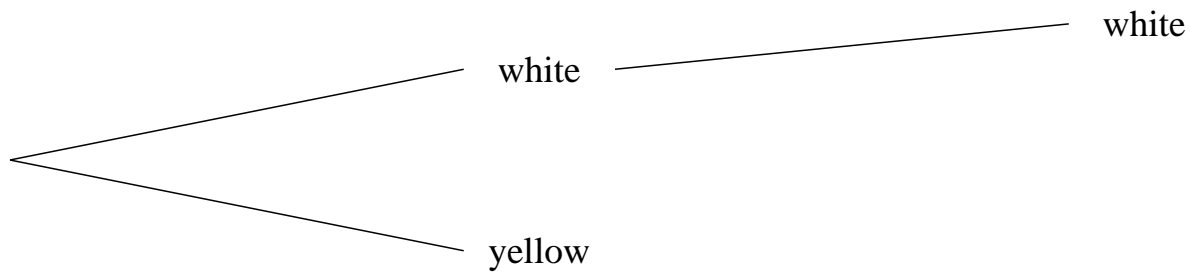
c) What is the probability of getting the same colour twice?

\_\_\_\_\_

d) What is the probability of getting different colours?

\_\_\_\_\_

- 6: One box contains 2 white balls and 6 yellow balls.  
A second box contains 2 white balls and 5 yellow balls.  
A ball is chosen at random from each box.  
Complete this tree diagram and hence answer the following:



- a) What is the probability of getting two yellow balls?

\_\_\_\_\_

- b) What is the probability of getting white at least once?

\_\_\_\_\_

- c) What is the probability of getting two balls of different colours?

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- d) What is the probability of getting two balls of the same colour?

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