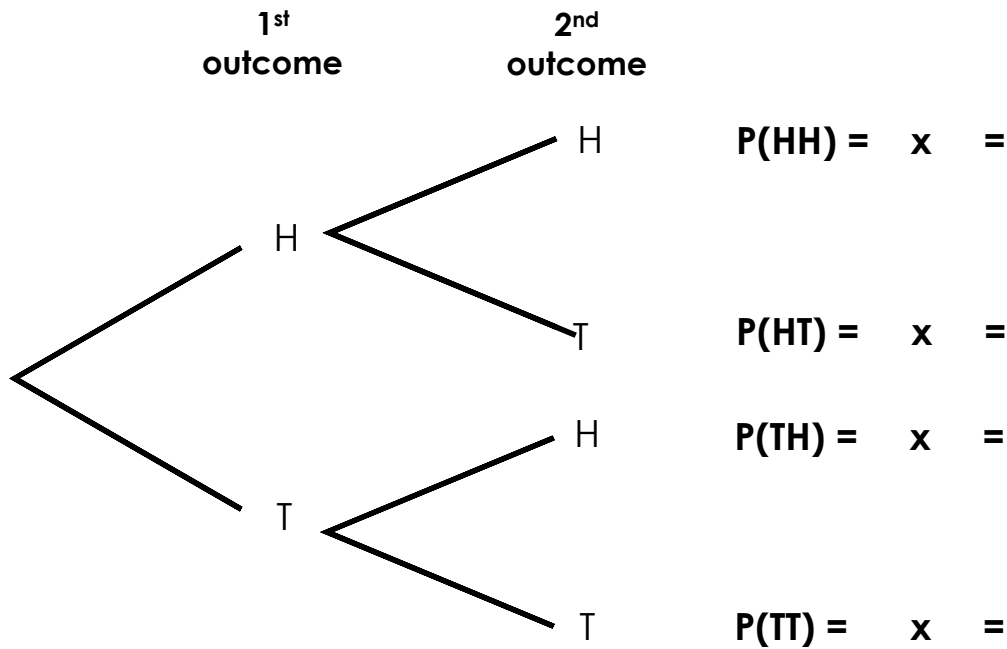


Name:

Date:

Probability – Tree Diagrams.

1) Use this tree diagram to show the possible outcomes if you flip a coin twice.



2) You roll a dice twice. The dice is numbered 1 to 6.

a) Draw a tree diagram to help calculate the probability you will roll two even numbers.

b) Calculate the probability you will roll one even and one odd number.

.....

Name:

Date:

3) You have a bag containing 6 red and 4 blue counters.

a) What is the probability you will pick:

a red counter?.....

a blue counter?.....

b) You pick a counter from the bag, make a note of its colour and then replace it. You then pick a second counter. Draw a tree diagram to show all the possible outcomes.

c) What is the probability you will pick:

two red counters?

.....

two blue counters?

.....

one red and one blue counter?

.....

Name:

Date:

4) You have the same bag containing 6 red and 4 blue counters.

a) This time you pick a counter from the bag, make a note of its colour but **don't** replace it. You then pick a second counter. Draw a tree diagram to show all the possible outcomes.

b) What is the probability you will pick:

two red counters?

.....

two blue counters?

.....

one red and one blue counter?

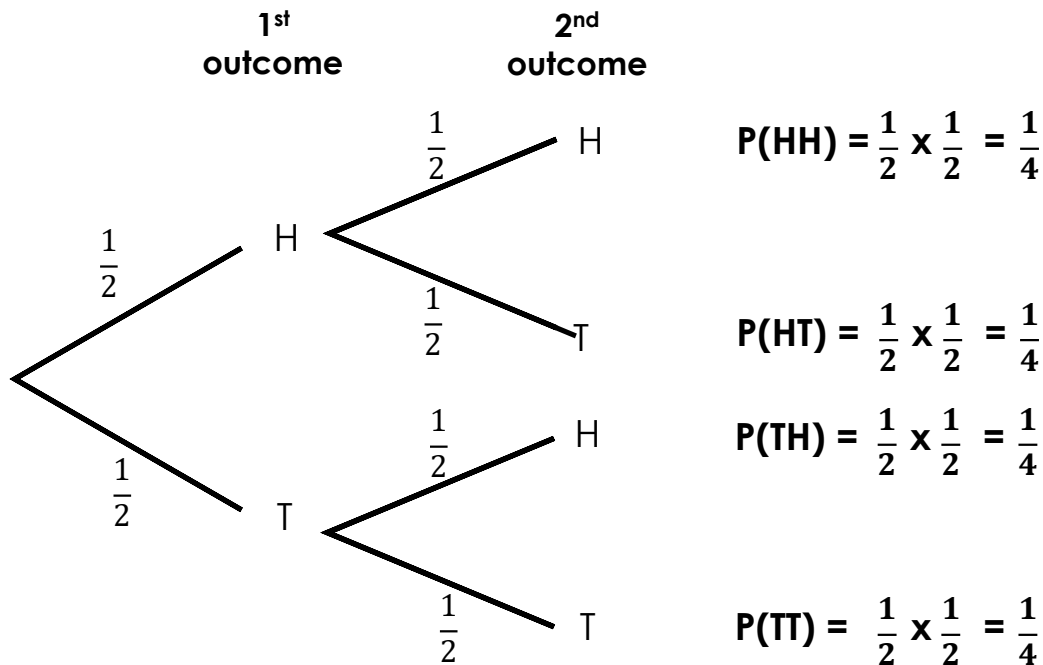
.....

Name:

Date:

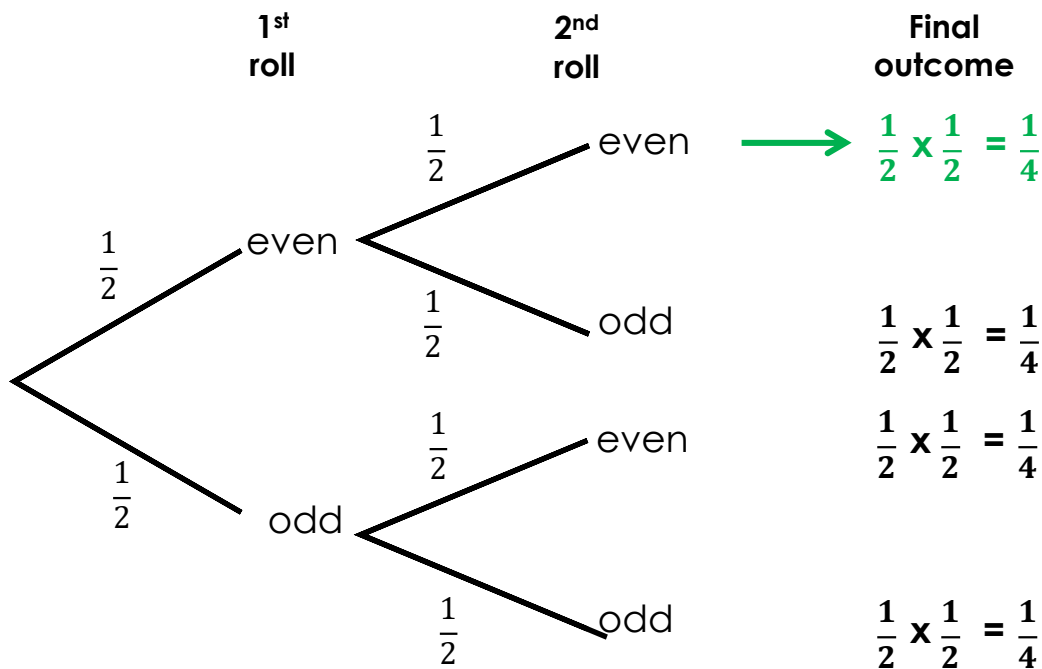
Probability – Tree Diagrams. (Answers)

1) Use a tree diagram to show the possible outcomes if you flip a coin twice.



2) You roll a dice twice. The dice is numbered 1 to 6.

a) Draw a tree diagram to help calculate the probability you will roll two even numbers.



b) Calculate the probability you will roll one even and one odd number.

$$P(\text{even then odd}) + P(\text{odd then even}) = \frac{1}{4} + \frac{1}{4} = \frac{1}{2}$$

Name:

Date:

Answers.

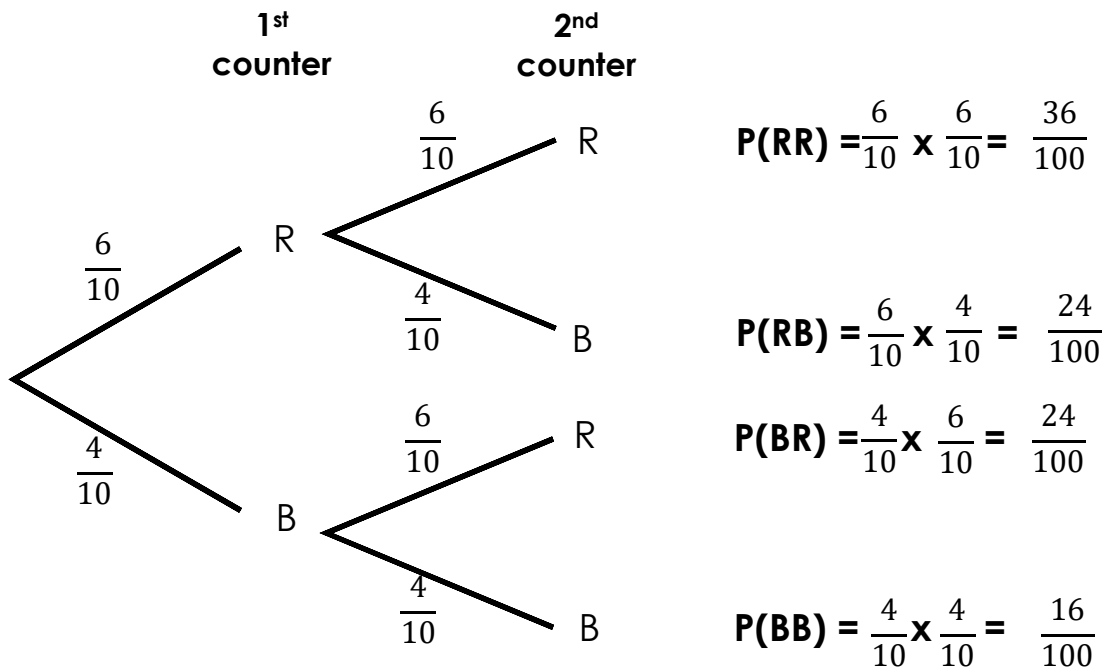
1) You have a bag containing 6 red and 4 blue counters.

a) What is the probability you will pick:

a red counter? $\frac{6}{10}$

a blue counter? $\frac{4}{10}$

b) You pick a counter from the bag, make a note of its colour and then replace it. You then pick a second counter. Draw a tree diagram to show all the possible outcomes.



c) What is the probability you will pick:

two red counters? $\frac{36}{100}$

.....

two blue counters? $\frac{16}{100}$

.....

one red and one blue counter? $\frac{24}{100} + \frac{24}{100} = \frac{48}{100}$

.....

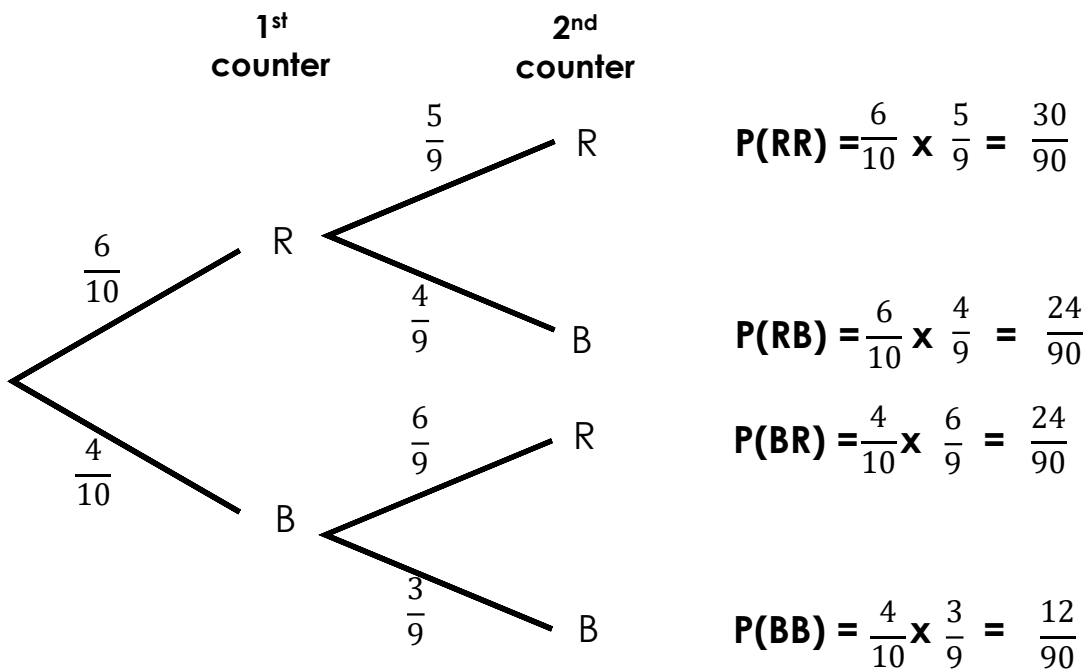
Name:

Date:

Answers.

4) You have the same bag containing 6 red and 4 blue counters.

a) This time you pick a counter from the bag, make a note of its colour but **don't** replace it. You then pick a second counter. Draw a tree diagram to show all the possible outcomes.



b) What is the probability you will pick:

two red counters? $\frac{30}{90}$

.....

two blue counters? $\frac{12}{90}$

.....

one red and one blue counter? $\frac{24}{90} + \frac{24}{90} = \frac{48}{90}$

.....