Student Name: _____ Score:

Probability of Numbers Worksheet

A number is chosen at random from 1 to 10.

Problems	Work Space
Find the probability of selecting a multiple of 2. Answer: _____	
Find the probability of selecting a multiple of 3. Answer: _____	
Find the probability of selecting neither a multiple of 2 nor multiple of 3. Answer: _____	
Find the probability of selecting the factors of 4 and factors of 6. Answer: _____	
Find the probability of selecting an odd number. Answer: _____	

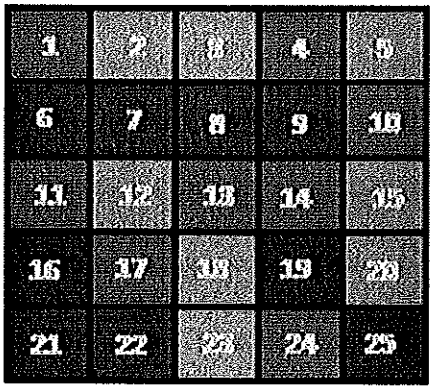
Student Name: _____ **Score:**

Answers

Find the probability of selecting a multiple of 2. Answer: $\frac{1}{2}$	
Find the probability of selecting a multiple of 3. Answer: $\frac{3}{10}$	
Find the probability of selecting neither a multiple of 2 nor multiple of 3. Answer: $\frac{3}{10}$	
Find the probability of selecting the factors of 4 and factors of 6. Answer: $\frac{1}{5}$	
Find the probability of selecting an odd number. Answer: $\frac{1}{2}$	

Student Name: _____ Score:

Mutually exclusive and mutually inclusive



A dart board is numbered from 1 to 25. Each cell is colored red, green or blue. A dart is thrown and hits the board. What is the probability of hitting an even number? Answer: What is the probability of hitting an even number in the red cells? Answer: What is the probability of hitting a blue cell? Answer: What is the probability of hitting a green or a red cell? Answer: What is the probability of hitting an odd number in a blue or green cell? Answer:	Work Space

Student Name: _____ **Score:**

Answers:

A dart board is numbered from 1 to 25. Each cell is colored red, green or blue. A dart is thrown and hits the board. What is the probability of hitting an even number? Answer: $\frac{12}{25}$ What is the probability of hitting an even number in the red cells? Answer: $\frac{4}{25}$ What is the probability of hitting a blue cell? Answer: $\frac{9}{25}$ What is the probability of hitting a green or a red cell? Answer: $\frac{16}{25}$ What is the probability of hitting an odd number in a blue or green cell? Answer: $\frac{9}{25}$	Work Space

Student Name: _____ Score:

Identify the suitable events

Identify more likely, less likely, equally likely, sure and impossible events:

	Answer
Selection of a white ball from a box with 5 white balls, 8 red balls and 10 yellow balls.	
Selection of a black card from a deck of cards	
Occurrence of even number when a die is rolled.	
Selection of red marble from a box with 12 red marbles.	
Selection of red marble from a box with 12 white balls.	
Selecting a boy for a field trip from a group of 35 students with 12 girls.	

Student Name: _____ **Score:**

Identify more likely, less likely, equally likely, sure and impossible events:

	Answer
Selection of a white ball from a box with 5 white balls, 8 red balls and 10 yellow balls.	Less likely
Selection of a black card from a deck of cards	Equally likely
Occurrence of even number when a die is rolled.	Equally likely
Selection of a red marble from a box with 12 red marbles.	Sure event
Selection of a red marble from a box with 12 white balls.	Impossible event
Selecting a boy for a field trip from a group of 35 students with 12 girls.	More likely

Student Name: _____ Score:

Balls in a container

Work Space

There are 5 white balls, 8 red balls, 7 yellow balls and 4 green balls in a container. A ball is chosen at random.

What is the probability of choosing red?

Answer:

What is the probability of choosing green?

Answer:

What is the probability of choosing either red or white?

Answer:

What is the probability of choosing neither white nor green?

Answer:

What is the probability of choosing other than yellow?

Answer:

What is the probability of choosing black?

Answer:

Student Name: _____ **Score:**

Answers: Work Space

There are 5 white balls, 8 red balls, 7 yellow balls and 4 green balls in a container. A ball is chosen at random.

What is the probability of choosing red?

Answer: $\frac{1}{3}$

What is the probability of choosing green?

Answer: $\frac{1}{6}$

What is the probability of choosing either red or white?

Answer: $\frac{13}{24}$

What is the probability of choosing neither white nor green?

Answer: $\frac{5}{8}$

What is the probability of choosing a ball other than yellow?

Answer: $\frac{17}{24}$

What is the probability of choosing black?

Answer: 0

Student Name: _____ Score:

Deck of Cards Worksheet

A card is drawn from a deck of 52 cards.

Find the probability of drawing a club and heart. Answer: _____	Work Space
Find the probability of drawing either a black card or number 10. Answer: _____	
Find the probability of drawing a number more than 5. Answer: _____	
Find the probability of drawing a picture card. (includes jack, queen or king) Answer: _____	
Find the probability of drawing a red ace. Answer: _____	

Student Name: _____ **Score:**

Answers

Find the probability of drawing a club and heart. Answer: $\frac{1}{52}$	Work Space
Find the probability of drawing either a black card or number 10. Answer: $\frac{7}{13}$	
Find the probability of drawing a number more than 5. Answer: $\frac{5}{13}$	
Find the probability of drawing a picture card. (includes jack, queen or king) Answer: $\frac{3}{13}$	
Find the probability of drawing a red ace. Answer: $\frac{1}{26}$	

Student Name: _____ **Score:**

Pair of Dice Worksheet

A pair of dice is rolled.

Problems	Work Space
Find the probability of showing 6 on the first die or 4 on the second die Answer: _____	
Find the probability of showing an even number on the first die and an odd number on the second die Answer: _____	
Find the probability of neither showing multiple of 3 nor multiple of 4 on the second die Answer: _____	
Find the probability of showing multiple of 2 and multiple of 3 on the first die Answer: _____	
Find the probability of showing either prime number on the first die or multiple of 5 on the second die Answer: _____	

Student Name: _____ Score:

Answers

Find the probability of showing 6 on the first die or 4 on the second die Answer: $\frac{11}{36}$	
Find the probability of showing an even number on the first die and an odd number on the second die Answer: $\frac{1}{4}$	
Find the probability of neither showing multiple of 3 nor multiple of 4 on the second die Answer: $\frac{1}{2}$	
Find the probability of showing multiple of 2 and multiple of 3 on the first die Answer: $\frac{1}{6}$	
Find the probability of showing either prime number on the first die or multiple of 5 on the second die Answer: $\frac{7}{12}$	

Student Name: _____ Score:

Coins Worksheet

Two fair coins are simultaneously tossed

Problems	Work Space
Find the probability of showing head first and tail next Answer: _____	
Find the probability of showing either heads or tails but not both Answer: _____	
Find the probability of not showing either heads or tails on both coins Answer: _____	
Find the probability of showing either head or tail on the second coin Answer: _____	
Find the probability of showing either head on the first coin or tail on the second coin Answer: _____	

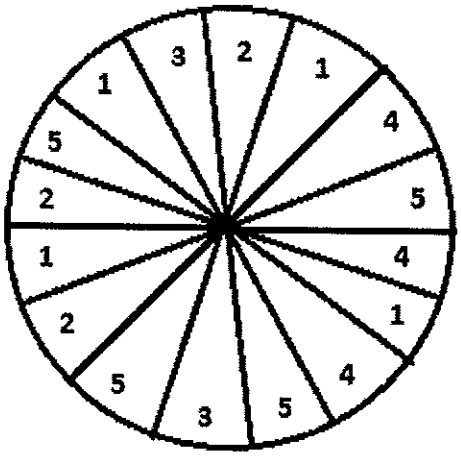
Student Name: _____ **Score:**

Answers

Find the probability of showing head first and tail next Answer: $\frac{1}{4}$	
Find the probability of showing either heads or tails but not both Answer: $\frac{1}{2}$	
Find the probability of not showing either heads or tails on both coins Answer: $\frac{1}{2}$	
Find the probability of showing either head or tail on the second coin Answer: 1	
Find the probability of showing either head on the first coin or tail on the second coin Answer: $\frac{3}{4}$	

Student Name: _____ Score:

Probability - Spinner

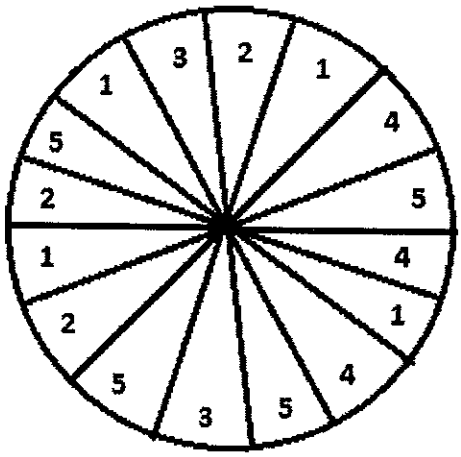


Work Space

What is the probability of choosing an odd number? Answer:	
What is the probability of choosing an even number? Answer:	
What is the probability of choosing a prime number? Answer:	
What is the probability of choosing 1 or 5? Answer:	
What is the probability of choosing 3 or 4? Answer:	

Student Name: _____ Score:

Answers:



Work Space

What is the probability of choosing an odd number? Answer: $\frac{5}{8}$	
What is the probability of choosing an even number? Answer: $\frac{3}{8}$	
What is the probability of choosing a prime number? Answer: $\frac{9}{16}$	
What is the probability of choosing 1 or 5? Answer: $\frac{8}{16}$	
What is the probability of choosing 3 or 4? Answer: $\frac{5}{16}$	

Student Name: _____ **Score:**

Independent and Dependent

10 cards are numbered from 1 through 10. The cards are well shuffled and are drawn at random.

Problems	Work Space
Three cards are drawn without replacement. The first and the second cards show 4 and 6 respectively. Find the probability of selecting an even number in a third draw. Answer: _____	
If the conditions are the same as in question 1, find the probability of selecting an odd number in the third draw. Answer: _____	
If two cards are drawn with replacement, find the probability of choosing a prime number in both the first and the second draw. Answer: _____	
If two cards are drawn without replacement, find the probability of drawing 4 or 5 in the first draw and any even prime in the second draw. Answer: _____	

Student Name: _____ **Score:**

Answers

Three cards are drawn without replacement. The first and the second cards show 4 and 6 respectively. Find the probability of selecting an even number in a third draw. Answer: $\frac{3}{8}$	
If the conditions are the same as in question 1, find the probability of selecting an odd number in the third draw. Answer: $\frac{5}{8}$	
If two cards are drawn with replacement, find the probability of choosing a prime number in both the first and the second draw. Answer: $\frac{4}{10} * \frac{3}{9} = \frac{2}{15}$	
If two cards are drawn without replacement, find the probability of drawing 4 or 5 in the first draw and any even prime in the second draw. Answer: $\frac{2}{10} * \frac{1}{9} = \frac{1}{45}$	

Student Name: _____ Score:

Independent and Dependent

A box contains 2 red marbles, 3 white marbles, 4 green marbles and 1 blue marble. Two marbles are drawn at random without replacement. Find the probability of

Problems	Work Space
Selecting a green marble on the second draw if the first marble is blue. Answer: _____	
Selecting a white marble on the first draw and red marble on the second draw. Answer: _____	
Selecting a red marbles on both draws. Answer: _____	
Selecting a red or white on the first draw and green or blue on the second draw. Answer: _____	
Selecting a white marble on the first draw and a white or blue on the second draw. Answer: _____	

Student Name: _____ **Score:**

Answers

Selecting a green marble on the second draw if the first marble is blue. Answer: $\frac{4}{9}$	
Selecting a white marble on the first draw and red marble on the second draw. Answer: $\frac{3}{10} * \frac{2}{9} = \frac{1}{15}$	
Selecting a red marbles on both draws. Answer: $\frac{2}{10} * \frac{1}{9} = \frac{1}{45}$	
Selecting a red or white on the first draw and green or blue on the second draw. Answer: $\frac{5}{10} * \frac{5}{9} = \frac{5}{18}$	
Selecting a white marble on the first draw and a white or blue on the second draw.	

Student Name: _____ Score:

Independent and Dependent

Two cards are drawn from single deck of 52 cards one after the other.

Problems	Work Space
Find the probability of selecting a king from the first card. Answer: _____	
If the first card is king and the card is not replaced, what is the probability of selecting a king from the second card? Answer: _____	
Find the probability of selecting a king from the first card and a queen from the second card without replacing the first card. Answer: _____	
Find the probability of selecting a Jack from the first card and queen from the second card with replacement. Answer: _____	
Find the probability of selecting 6 or 7 in the first draw and 8 or 9 in the second draw without replacement. Answer: _____	

Student Name: _____ **Score:**

Answers

Find the probability of selecting a king from the first card. Answer: $\frac{1}{13}$	
If the first card is king and the card is not replaced, what is the probability of selecting a king from the second card? Answer: $\frac{1}{17}$	
Find the probability of selecting a king from the first card and a queen from the second card without replacing the first card. Answer: $\frac{4}{52} * \frac{4}{51} = \frac{4}{663}$	
Find the probability of selecting a Jack from the first card and queen from the second card with replacement. Answer: $\frac{4}{52} * \frac{4}{52} = \frac{1}{169}$	
Find the probability of selecting 6 or 7 in the first draw and 8 or 9 in the second draw without replacement. Answer: $\frac{8}{52} * \frac{8}{52} = \frac{4}{169}$	