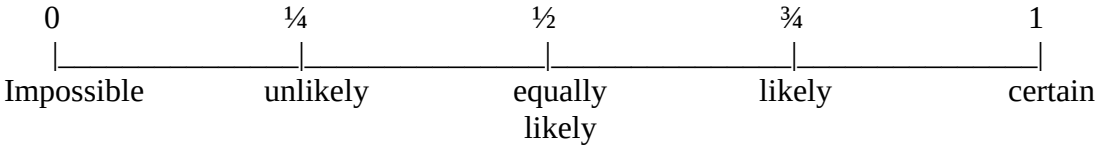
Name_____

THEORETICAL PROBABILITY #1

Directions: *Theoretical probability* describes how likely it is that an event will happen. Use the probability chart below to decide whether each event below is impossible, unlikely, equally likely, likely, or certain to happen.



Example: A two sided coin is flipped and lands on tails. **½ --Equally likely**

EVENT	**PROBABILITY**
1) A two-sided coin is flipped and lands on heads.	_____
2) Roll a die and get a number greater than six.	_____
3) Spin a spinner numbered 1-8, and you land on a number less than 3.	_____
4) You will watch at least 1 hour of TV today.	_____
5) Pick a blue marble from an equal number of blue, yellow, red, and green marbles.	_____
6) You will have fish for dinner tonight.	_____
7) Pick an ace from a regular deck of cards.	_____
8) Pick a red card from a regular deck of cards.	_____
9) Your class will go on a field trip this year.	_____
10) Roll a die and get an even number.	_____
11) Roll a die and get a number that is a factor of 30	_____
12) It will snow in your town tonight.	_____
13) Your birthday will fall on a Friday this year.	_____
14) Pick a purple marble out of a bag of red marbles.	_____
15) Picking a vowel from the letters in your school's name.	_____

Name_____

THEORETICAL PROBABILITY #2

Directions: Find the *theoretical probability* of each of the events described below. First, figure out the total number of possible *outcomes*. Then, determine how many times your *desired event* could happen. The theoretical probability of an event, or P (Event) is written as a fraction: **desired event/total possible outcomes**. If possible, reduce all of your fractions to lowest terms.

Example: Sophia had a six-sided number cube. Each side was labeled with one number, from 1 through 6. What is the probability that Sophia rolls a two?

Total possible outcomes: 6 Number of two's: 1 P (Rolling a two): **1/6**

---

1) Jacob had a six-sided number cube. Each side was labeled with one number, from 1 through 6. What is the probability that Jacob rolls a four?

Total possible outcomes: _____ Number of fours: _____ P (Rolling a four): _____

2) Emily was playing a board game that had a spinner with six equal-sized sections. Three of the sections were red, two sections were blue, and one section was yellow. Find the probability that she landed on a blue section.

Total possible outcomes: _____ Number of blues: _____ P (Spinning blue): _____

3) Michael wanted to pick a card randomly from a regular deck of 52 cards. The deck is divided evenly into red and black cards. What is the probability that Michael draws a black card?

Total possible outcomes: _____ Number of black cards: _____ P (Black card): _____

4) Madison's mom wrote the names of every day of the week on separate pieces of paper. Then she put the papers in a hat. Madison would have to clean her room on the day that she blindly picked from the hat. What is the probability that Madison will clean her room on a day that starts with the letter 'T'?

Total possible outcomes: _____ Number of days starting with 'T': ___ P (Days starting with 'T'): _____

5) Matthew went to the carnival and played a game that had a bucket filled with balls numbered 1-10? He wins the game if he chooses a number that is a multiple of 3. What is the probability that Matthew wins the game?

Total possible outcomes: _____ Number of multiples of 3: _____ P (Multiple of 3): _____

6) Hannah was trying to guess the month of her brother's birthday? She knew that the month had less than five letters in its name. What is the probability that Hannah guesses the correct month?

Total possible outcomes: _____ Number w/ less than 5 letters: _____ P (< 5 letters): _____

Name_____

PROBABILITY & COMPLEMENTS #3

Directions: The complement of an event can be looked at as the opposite of that event, or everything besides that event. The probability of an event and the complement of that event will always add up to a total of 1. For the problems below, find the probability of each event described and the probability of its complement.

Example: Flipping a coin 10 times and landing on tails 7 times. **P (tails) = 7/10** **P(heads) = 3/10**

---

1) Flipping a coin 20 times and landing on heads 11 times. P(heads) = _____ P(tails) = _____

2) It snowed three days last week. P(snow) = _____ P(no snow) = _____

3) A jar with 15 marbles, 7 are red. P(red) = _____ P(not red) = _____

4) Rolling a 1 on a regular die. P(one) = _____ P(not one) = _____

6) You had homework in 2 out of 7 classes. P(H-work) = _____ P(no h-work) = _____

7) Flipping a coin 35 times and landing on tails 19 times. P(tails) = _____ P(heads) = _____

8) Your ten digit phone number has one 3 in it. P(three) = _____ P(not three) = _____

9) A jar with 2 red, 3 green, and 5 blue marbles. P(green) = _____ P(not) = _____

10) Rolling a number less than 5 on a regular die. P(<5) = _____ P(>5) = _____

11) Flipping a coin and getting 7 tail and 4 heads. P(tails) = _____ P(not tails) = _____

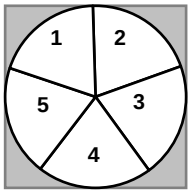
12) Picking an ace out of a regular deck of 52 cards. P(ace) = _____ P(not ace) = _____

13) A jar with 13 marbles, 2 are red, 1 green, the rest blue. P(blue) = _____ P(not blue) = _____

Name_____

PROBABILITY & PREDICTIONS #2

Directions: You can use *probability & proportions* to make predictions about the future. First, figure out the *probability* of a single event. Then set up and solve a *proportion* to calculate how many times that event is likely to happen in a certain number of trials. Use the spinner below, along with you knowledge of coins and regular number cubes (dice), to predict the events listed below.

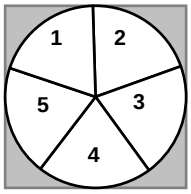


EVENT	PROPORTION	PREDICTION
1) If you flip the coin 200 times, how many tails?	$\frac{1}{2} = \frac{x}{200}$	***100 tails***
2) If you spin the spinner 40 times, how many 4's?		_____
3) If you roll the cube 60 times, how many 6's?		_____
4) If you flip the coin 96 times, how many heads?		_____
5) If you spin the spinner 50 times, how many even numbers?		_____
6) If you roll the cube 60 times, how many numbers less than 3?		_____
7) If you flip the coin 74 times, how many tails?		_____
8) If you spin the spinner 75 times, how many multiples of 2?		_____
9) If you roll the cube 120 times, how factors of 6?		_____
10) If you spin 90 times, how many numbers greater than 3?		_____

Name_____

PROBABILITY & PREDICTIONS #1

Directions: You can use *probability & proportions* to make predictions about the future. First, figure out the *probability* of a single event. Then set up and solve a *proportion* to calculate how many times that event is likely to happen in a certain number of trials. Use the spinner below, along with you knowledge of coins and regular number cubes (dice), to predict the events listed below.



EVENT	PROPORTION	PREDICTION
1) If you flip the coin 100 times, how many tails?	$\frac{1}{2}=\frac{x}{100}$	***50 tails***
2) If you spin the spinner 20 times, how many 5's?	$\frac{1}{5}=\frac{x}{20}$	_____
3) If you roll the cube 30 times, how many 3's?	$\frac{1}{6}=\frac{x}{?}$	_____
4) If you flip the coin 32 times, how many heads?	$\frac{1}{?}=\frac{x}{32}$	_____
5) If you spin the spinner 50 times, how many 5's?	$\frac{1}{?}=\frac{x}{50}$	_____
6) If you roll the cube 60 times, how many 6's?	$\frac{1}{?}=\frac{x}{60}$	_____
7) If you flip the coin 1,000 times, how many tails?	$\frac{?}{2}=\frac{x}{1000}$	_____
8) If you spin the spinner 75 times, how many 2's?	$\frac{?}{5}=\frac{x}{75}$	_____
9) If you roll the cube 120 times, how many 4's?	$\frac{1}{6}=\frac{x}{?}$	_____
10) If you flip the coin 250 times, how many tails?	$\frac{1}{2}=\frac{x}{?}$	_____

Name_____

PROBABILITY & COMPOUND EVENTS #1

Directions: A compound event represents a series of events happening at the same time, or in order. To calculate the probability of compound events, you can multiply the probabilities of each individual event. Depending on your teacher's preference, you can write this probability as a fraction or a decimal.

Examples:

EVENT	**PROBABILITY**
Flipping heads on coin and rolling 5 on a normal die	$\frac{1}{2} \bullet \frac{1}{6} = \frac{1}{12}$
A 60% free throw shooter making 3 free throws in a row	$0.60 \bullet 0.60 \bullet 0.60 = 0.216$

EVENT	**PROBABILITY**
1) Flipping a coin and getting tails three times in a row	_____
2) Rolling a die and getting a 4 twice in a row	_____
3) Spin a spinner numbered 1-8, and you land on 8 twice in a row	_____
4) A 70% free throw shooter makes two in a row	_____
5) Picking a blue marble three times in a row (replacing it in the bag each time) from a bag of 4 blues, 4 reds, and 4 greens	_____
6) Pulling a red card from a deck of cards, replacing it, and pulling another red card	_____
7) Picking two numbers from 1-10 and getting a multiple of 3 both times	_____
8) Flipping a coin, rolling a die, then flipping the coin again and getting tails, a four, then tails again	_____
9) Rolling a die and getting a number other than 4 twice in a row	_____
10) Spin a spinner numbered 1-8 two times, land on two the first time and land on a factor of 8 the second time	_____
11) A 70% free throw shooter misses two in a row	_____
12) Picking a blue marble, a green marble, and another blue marble (replacing it in the bag each time) from a bag of 2 blues, 4 reds, and 4 greens	_____
13) Pulling a red card from a deck of cards, replacing it, and then pulling a king	_____

Name_____

COMPARING AVERAGES GRAPHICALLY #1

Directions: Find the mean, median, mode, and range for each stem and leaf plot below. Remember, in a stem and leaf plot 6|3 means 63. For example, in the first plot, Chris' lowest score is 71, and Cody's lowest score is 70.

Mean is the sum of the data divided by the number of data points. *Median* is the middle data point of the ordered data. *Mean* is the sum of the data divided by the number of data points. *Mode* is the data point(s) that appears the most. *Range* is the difference between the largest data point and the smallest data point.

Round all of your answers to the nearest tenth.

Chris	Test Scores	Cody
	6	
4 3 2 1	7	0 6 8 8
5 5	8	1 8
9 7 5	9	5 7 9
0 0	10	0 0

Chris: Mean _____ Median_____ Mode_____ Range____

Cody: Mean _____ Median_____ Mode_____ Range____

Joseph	Points Scored	Jennifer
9 6 3	1	1 3 6
4 2 0 0	2	0 6 8 8
5 5	3	1 8
8 7 5	4	5 7
1	5	

Joseph: Mean _____ Median_____ Mode_____ Range____

Jennifer: Mean _____ Median_____ Mode_____ Range____

Tiffany	$$ Earned	Terry
1 1 1	6	0 2
0	7	0
5	8	1 8
9 7 5	9	5 7 9
0 0	10	0

Tiffany: Mean _____ Median_____ Mode_____ Range____

Terry: Mean _____ Median_____ Mode_____ Range____

Name_____

MEAN/MEDIAN/MODE/RANGE #3

Directions: Calculate the *mean, median, mode, and range* for each set of numbers below. To find the *mean* of a set of numbers, add all of the data together, then divide that sum by the amount of numbers in the set. To find the *median,* list the numbers from least to greatest and select the middle value. The *mode* is the number that appears most often in the set. There could be more than one mode, or there could be no mode. To find the *range*, take the largest value in the set minus the smallest value.

Example: Here are the numbers in the set (2, 2, 8, 10, 8)

Mean = (2 + 2 + 8 + 10 + 8) / 5 = 30/5 = **6**

Median = *(~~2~~,~~2~~,8,~~8~~,~~10~~)* = **8**

Mode = ***2 and 8***

Range = 10 – 2 = **8**

		MEAN	MEDIAN	MODE	RANGE
1)	(4, 4, 10, 6,)	_____	_____	_____	_____
2)	(4, 8, 10, 12, 2, 6)	_____	_____	_____	_____
3)	(10, 15, 5, 6)	_____	_____	_____	_____
4)	(9, 4, 5, 7, 5)	_____	_____	_____	_____
5)	(4, 1, 2, 6, 6, 1, 6, 6)	_____	_____	_____	_____
6)	(12, 14, 16, 10,)	_____	_____	_____	_____
7)	(10, 4, 6, 10, 4, 6)	_____	_____	_____	_____
8)	(26, 9, 8, 13,)	_____	_____	_____	_____
9)	(16, 7, 14, 11, 7)	_____	_____	_____	_____
10)	(0, 3, 0, 4, 1, 0, 5, 1, 3, 3)	_____	_____	_____	_____

Name_____

MEAN/MEDIAN/MODE/RANGE #1

Directions: Calculate the *mean, median, mode, and range* for each set of numbers below. To find the *mean* of a set of numbers, add all of the data together, then divide that sum by the amount of numbers in the set. To find the *median,* list the numbers from least to greatest and select the middle value. The *mode* is the number that appears most often in the set. There could be more than one mode, or there could be no mode. To find the *range*, take the largest value in the set minus the smallest value.

Example: Here are the numbers in the set (2, 2, 8, 10, 8)

Mean = (2 + 2 + 8 + 10 + 8) / 5 = 30/5 = **6**

Median = *(~~2~~,~~2~~,8,~~8~~,~~10~~)* = **8**

Mode = ***2 and 8***

Range = 10 – 2 = **8**

		MEAN	MEDIAN	MODE	RANGE
1)	(5, 2, 4, 6, 8,)	_____	_____	_____	_____
2)	(2, 1, 4, 6, 1, 4, 3)	_____	_____	_____	_____
3)	(12, 8, 10,)	_____	_____	_____	_____
4)	(6, 2, 5, 7, 5)	_____	_____	_____	_____
5)	(1, 2, 4, 6, 1, 6, 1)	_____	_____	_____	_____
6)	(12, 4, 6, 10, 8)	_____	_____	_____	_____
7)	(2, 6, 10, 4, 6, 10, 4)	_____	_____	_____	_____
8)	(9, 8, 10,)	_____	_____	_____	_____
9)	(6, 8, 5, 11, 5)	_____	_____	_____	_____
10)	(5, 1, 4, 6, 1, 2, 2)	_____	_____	_____	_____

EXTENSION: What would happen to the mean if you added "10" to each set? Would the mean increase or decrease? Would it increase/decrease for each set?

Name_____

ADDING FRACTIONS #1

Directions: Find the sum of the following fractions. Write your answer in the space provided.

Examples: $\frac{1}{6}+\frac{3}{6}=\frac{4}{6}=\frac{2}{3}$ $\frac{10}{18}+\frac{1}{18}=\frac{11}{18}$

1) $\frac{3}{8} + \frac{2}{8} =$ _____

2) $\frac{1}{9} + \frac{1}{9} =$ _____

3) $\frac{6}{10} + \frac{3}{10} =$ _____

4) $\frac{7}{20} + \frac{10}{20} =$ _____

5) $\frac{18}{25} + \frac{3}{25} =$ _____

6) $\frac{4}{7} + \frac{1}{7} =$ _____

7) $\frac{1}{5} + \frac{1}{5} =$ _____

8) $\frac{21}{50} + \frac{10}{50} =$ _____

9) $\frac{11}{33} + \frac{18}{33} =$ _____

10) $\frac{1}{15} + \frac{3}{15} =$ _____

11) $\frac{1}{4} + \frac{2}{4} =$ _____

12) $\frac{14}{20} + \frac{3}{20} =$ _____

13) $\frac{3}{8} + \frac{0}{8} =$ _____

14) $\frac{1}{10} + \frac{6}{10} =$ _____

15) $\frac{150}{200} + \frac{49}{200} =$ _____

16) $\frac{17}{25} + \frac{2}{25} =$ _____

17) $\frac{1}{10} + \frac{8}{10} =$ _____

18) $\frac{1}{9} + \frac{4}{9} =$ _____

19) $\frac{6}{32} + \frac{1}{32} =$ _____

20) $\frac{0}{9} + \frac{0}{9} =$ _____

Name_____

FRACTION ADDITION #3

Directions: Find the sum of the following fractions. First, find a common denominator. Second, write the equivalent fractions in the space provided. Finally, write your answer in the space provided.

Example: $\frac{1}{6}+\frac{2}{5} = \frac{5}{30}+\frac{12}{30} = \frac{17}{30}$

	Original Problem	Equivalent Fractions	Final Answer
1)	$\frac{5}{8} + \frac{1}{7} =$		_____
2)	$\frac{3}{5} + \frac{1}{3} =$		_____
3)	$\frac{3}{10} + \frac{2}{7} =$		_____
4)	$\frac{2}{9} + \frac{3}{5} =$		_____
5)	$\frac{1}{2} + \frac{1}{3} =$		_____
6)	$\frac{2}{5} + \frac{4}{7} =$		_____
7)	$\frac{5}{9} + \frac{0}{7} =$		_____
8)	$\frac{2}{5} + \frac{6}{11} =$		_____
9)	$\frac{1}{6} + \frac{3}{7} =$		_____
10)	$\frac{1}{2} + \frac{1}{9} =$		_____

Name_____

FRACTION SUBTRACTION #2

Directions: Find the difference of the following fractions. Write your answer in the space provided. If necessary, simplify your answer and write it in lowest terms.

Examples: $\frac{4}{6}-\frac{1}{6}=\frac{3}{6}=\frac{1}{2}$ $\frac{10}{18}-\frac{3}{18}=\frac{7}{18}$

1) $\frac{5}{8}-\frac{2}{8}=$ _____

2) $\frac{2}{9}-\frac{1}{9}=$ _____

3) $\frac{6}{10}-\frac{2}{10}=$ _____

4) $\frac{7}{20}-\frac{5}{20}=$ _____

5) $\frac{18}{25}-\frac{4}{25}=$ _____

6) $\frac{4}{7}-\frac{1}{7}=$ _____

7) $\frac{1}{3}-\frac{1}{3}=$ _____

8) $\frac{30}{50}-\frac{20}{50}=$ _____

9) $\frac{20}{33}-\frac{11}{33}=$ _____

10) $\frac{4}{15}-\frac{1}{15}=$ _____

11) $\frac{2}{4}-\frac{1}{4}=$ _____

12) $\frac{15}{20}-\frac{3}{20}=$ _____

13) $\frac{5}{8}-\frac{0}{8}=$ _____

14) $\frac{4}{10}-\frac{4}{10}=$ _____

15) $\frac{50}{300}-\frac{49}{300}=$ _____

16) $\frac{17}{25}-\frac{3}{25}=$ _____

17) $\frac{1}{100}-\frac{1}{100}=$ _____

18) $\frac{5}{9}-\frac{1}{9}=$ _____

19) $\frac{6}{32}-\frac{2}{32}=$ _____

20) $\frac{0}{9}-\frac{0}{9}=$ _____

Name_____

FRACTION SUBTRACTION #4

Directions: Find the difference of the following fractions. First, find a common denominator. Second, write the equivalent fractions in the space provided. Finally, write your answer in the space provided. If necessary, simplify your answers and write them in lowest terms.

Example: $\frac{2}{5} - \frac{2}{6} = \frac{12}{30} - \frac{10}{30} = \frac{2}{30} = \frac{1}{15}$

	Original Problem	**Equivalent Fractions**	**Final Answer**
1)	$\frac{4}{10} - \frac{2}{7} =$		_____
2)	$\frac{3}{10} - \frac{1}{6} =$		_____
3)	$\frac{4}{9} - \frac{1}{4} =$		_____
4)	$\frac{4}{8} - \frac{2}{5} =$		_____
5)	$\frac{3}{6} - \frac{3}{8} =$		_____
6)	$\frac{5}{8} - \frac{2}{7} =$		_____
7)	$\frac{3}{5} - \frac{2}{6} =$		_____
8)	$\frac{3}{9} - \frac{2}{10} =$		_____
9)	$\frac{2}{3} - \frac{3}{9} =$		_____
10)	$\frac{1}{4} - \frac{1}{8} =$		_____

Name_____

COMPARING FRACTIONS #1

Directions: Compare the fractions below using the appropriate math symbol. If the fraction on the left is *less than* the fraction on the right, use the symbol '<'. If the fraction on the left is *greater than* the fraction on the right, use the symbol '>'. If both fractions are *equal*, use the symbol '='.

Examples: $\frac{1}{6}$ __<__ $\frac{2}{6}$ $\quad\frac{12}{25}$ __>__ $\frac{9}{25}$ $\quad\frac{20}{75}$ __=__ $\frac{20}{75}$

1) $\frac{3}{8}$ _____ $\frac{2}{8}$

2) $\frac{1}{9}$ _____ $\frac{1}{9}$

3) $\frac{6}{10}$ _____ $\frac{5}{10}$

4) $\frac{6}{20}$ _____ $\frac{10}{20}$

5) $\frac{18}{25}$ _____ $\frac{3}{25}$

6) $\frac{4}{7}$ _____ $\frac{1}{7}$

7) $\frac{1}{5}$ _____ $\frac{1}{5}$

8) $\frac{21}{50}$ _____ $\frac{10}{50}$

9) $\frac{11}{33}$ _____ $\frac{18}{33}$

10) $\frac{1}{15}$ _____ $\frac{3}{15}$

11) $\frac{1}{4}$ _____ $\frac{2}{4}$

12) $\frac{14}{20}$ _____ $\frac{3}{20}$

13) $\frac{3}{8}$ _____ $\frac{0}{8}$

14) $\frac{1}{10}$ _____ $\frac{6}{10}$

15) $\frac{150}{200}$ _____ $\frac{49}{200}$

16) $\frac{17}{25}$ _____ $\frac{2}{25}$

17) $\frac{1}{10}$ _____ $\frac{8}{10}$

18) $\frac{1}{9}$ _____ $\frac{4}{9}$

19) $\frac{6}{32}$ _____ $\frac{1}{32}$

20) $\frac{0}{9}$ _____ $\frac{0}{9}$

Name_____

COMPARING FRACTIONS #2

Directions: Compare the fractions below using the appropriate math symbol. If the fraction on the left is *less than* the fraction on the right, use the symbol '<'. If the fraction on the left is *greater than* the fraction on the right, use the symbol '>'. If both fractions are *equal*, use the symbol '='.

Example: $\frac{1}{3}$ __>__ $\frac{2}{9}$ because $\frac{1}{3} = \frac{3}{9}$ and $\frac{3}{9}$ is greater than $\frac{2}{9}$

1) $\frac{3}{8}$ _____ $\frac{1}{4}$

2) $\frac{5}{18}$ _____ $\frac{1}{9}$

3) $\frac{6}{10}$ _____ $\frac{20}{30}$

4) $\frac{6}{20}$ _____ $\frac{1}{5}$

5) $\frac{1}{50}$ _____ $\frac{3}{25}$

6) $\frac{4}{8}$ _____ $\frac{1}{2}$

7) $\frac{7}{12}$ _____ $\frac{2}{6}$

8) $\frac{21}{50}$ _____ $\frac{3}{5}$

9) $\frac{11}{33}$ _____ $\frac{2}{3}$

10) $\frac{10}{15}$ _____ $\frac{4}{5}$

11) $\frac{1}{4}$ _____ $\frac{4}{20}$

12) $\frac{14}{20}$ _____ $\frac{6}{10}$

13) $\frac{1}{24}$ _____ $\frac{0}{8}$

14) $\frac{15}{100}$ _____ $\frac{1}{10}$

15) $\frac{150}{200}$ _____ $\frac{49}{100}$

16) $\frac{6}{16}$ _____ $\frac{1}{4}$

17) $\frac{12}{32}$ _____ $\frac{3}{4}$

18) $\frac{8}{45}$ _____ $\frac{2}{9}$

19) $\frac{6}{30}$ _____ $\frac{1}{5}$

20) $\frac{0}{9}$ _____ $\frac{0}{8}$

Name_____

FRACTION DIVISION #1

Directions: Find the quotient of the following fractions. Write your answer in the space provided.

Examples: $\frac{3}{7} \div \frac{1}{2} = \frac{3}{7} \times \frac{2}{1} = \frac{6}{7}$ $\frac{1}{7} \div \frac{3}{5} = \frac{1}{7} \times \frac{5}{3} = \frac{5}{21}$

1) $\frac{1}{6} \div \frac{3}{7} =$ _____

2) $\frac{3}{10} \div \frac{4}{7} =$ _____

3) $\frac{3}{4} \div \frac{5}{3} =$ _____

4) $\frac{1}{9} \div \frac{4}{5} =$ _____

5) $\frac{1}{8} \div \frac{1}{5} =$ _____

6) $\frac{1}{8} \div \frac{1}{3} =$ _____

7) $\frac{10}{11} \div \frac{4}{3} =$ _____

8) $\frac{2}{7} \div \frac{3}{5} =$ _____

9) $\frac{7}{8} \div \frac{8}{9} =$ _____

10) $\frac{1}{5} \div \frac{1}{4} =$ _____

11) $\frac{3}{10} \div \frac{7}{7} =$ _____

12) $\frac{13}{20} \div \frac{1}{1} =$ _____

13) $\frac{5}{12} \div \frac{3}{5} =$ _____

14) $\frac{5}{7} \div \frac{7}{3} =$ _____

15) $\frac{1}{8} \div \frac{3}{7} =$ _____

16) $\frac{0}{6} \div \frac{8}{10} =$ _____

17) $\frac{5}{11} \div \frac{3}{4} =$ _____

18) $\frac{1}{10} \div \frac{1}{3} =$ _____

19) $\frac{11}{9} \div \frac{3}{2} =$ _____

20) $\frac{3}{8} \div \frac{7}{5} =$ _____

Name_____

FRACTION MULTIPLICATION #1

Directions: Find the product of the following fractions. Write your answer in the space provided.

Examples: $\frac{1}{7}\times\frac{3}{5}=\frac{5}{21}$ $\frac{5}{7}\times\frac{2}{7}=\frac{10}{49}$

1) $\frac{5}{8}\times\frac{3}{7}=$ _____

2) $\frac{4}{11}\times\frac{2}{9}=$ _____

3) $\frac{3}{10}\times\frac{1}{10}=$ _____

4) $\frac{7}{20}\times\frac{1}{4}=$ _____

5) $\frac{3}{8}\times\frac{3}{10}=$ _____

6) $\frac{4}{7}\times\frac{8}{9}=$ _____

7) $\frac{1}{9}\times\frac{1}{9}=$ _____

8) $\frac{20}{50}\times\frac{0}{4}=$ _____

9) $\frac{11}{30}\times\frac{1}{2}=$ _____

10) $\frac{1}{5}\times\frac{3}{7}=$ _____

11) $\frac{1}{4}\times\frac{9}{10}=$ _____

12) $\frac{3}{5}\times\frac{3}{5}=$ _____

13) $\frac{4}{8}\times\frac{0}{8}=$ _____

14) $\frac{4}{9}\times\frac{2}{9}=$ _____

15) $\frac{2}{3}\times\frac{1}{11}=$ _____

16) $\frac{3}{4}\times\frac{5}{8}=$ _____

17) $\frac{1}{100}\times\frac{1}{1}=$ _____

18) $\frac{1}{9}\times\frac{5}{9}=$ _____

19) $\frac{7}{10}\times\frac{1}{3}=$ _____

20) $\frac{0}{1}\times\frac{0}{1}=$ _____

Name_____

CALCULATING UNIT RATES #1

Directions: One of the most reliable ways to find a *unit rate* is by setting up and solving a proportion. Find the *unit rates* for each of the situations below. For this worksheet, the proportions have already been set up for you.

Example: $\frac{10\,pts.}{\frac{1}{2}\,game} = \frac{x}{1 game}$ $\qquad \frac{1}{2}x = 10$ $\qquad$ **x = 20 points/game**

	PROPORTION	**EQUATION**	**SOLUTION**
1)	$\frac{13 \text{ points}}{\frac{1}{2} \text{ game}} = \frac{x}{1 \text{ game}}$	$\frac{1}{2}x = 13$	**_____ points/game**
2)	$\frac{\$7}{\frac{1}{3} \text{ hour}} = \frac{x}{1 \text{ hour}}$		
3)	$\frac{2 \text{ laps}}{\frac{1}{4} \text{minute}} = \frac{x}{1 \text{ minute}}$		
4)	$\frac{3 \text{ miles}}{\frac{1}{5} \text{minute}} = \frac{x}{1 \text{ minute}}$		
5)	$\frac{6 \text{ degrees}}{\frac{2}{3} \text{day}} = \frac{x}{1 \text{ day}}$		
6)	$\frac{5 \text{ books}}{\frac{2}{5} \text{month}} = \frac{x}{1 \text{ month}}$		
7)	$\frac{9 \text{ gallons}}{\frac{3}{4} \text{hour}} = \frac{x}{1 \text{ hour}}$		
8)	$\frac{12 \text{ miles}}{\frac{4}{5} \text{hour}} = \frac{x}{1 \text{ hour}}$		
9)	$\frac{6 \text{ calls}}{\frac{1}{10} \text{day}} = \frac{x}{1 \text{ day}}$		