Worksheet 2 Using a Table

Find the data by studying the rows, columns, and intersections.

The table shows the departure times and destinations of some buses.

Departure

3 P.M.

Bus Schedule

Step 1

Destination

Look under Destination for the row that shows Boston.

Departure

5 P.M.

Departure

9 P.M.

		and the second		
	Newark	X24	T48	U36
	Cleveland	veland V11		Y32
7	Boston	W77	P88	Q10
Step	2 Look across th row for a 3 P.M departure.		Boston row r	tion where the meets the 3 P.M. Jumn shows W77.
<u> </u>	Example ———			

Mr. Sanchez wants to reach his home in Boston in time for dinner at 8 P.M. The bus journey takes about 4 hours. Which bus should he take to reach home in time for dinner?

4 hours after 3 P.M. is 7 P.M.

He should take bus <u>W77</u>.

1.

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Which buses go to Boston? _____, ____, and _____,

2. Which buses depart at 5 P.M.? _____, ____, and _____,

- 3. The bus journey to Newark takes about 30 minutes. Which bus must Mr. Daniels take to reach his home in Newark in the evening?
- **4.** Ms. Williams can only reach the bus station at 4.40 P.M. Which buses can she take to Cleveland? ______ or _____

Complete. Use the data in the table.

The table shows the favorite fruit of a group of students.

Fruit	Number of Boys	Number of Girls	Total Number
Apple	20	22	42
Orange	8	7	15
Pear	9	14	23
Banana	21	13	34
Guava	4	6	10

Favorite Fruit of a Group of Students

- Example -

The greatest number of students prefer <u>apples</u>

5. The least number of students prefer _____

6. _____ more students prefer bananas to oranges.

7. _____ more girls than boys prefer pears.

8. 32 fewer students prefer guavas to _____.

- **9.** There are a total of _____ boys in the survey.
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Complete the table using the following data. Answer the questions.

- There are 200 students in a school.
- 76 students take the bus to school.
- 1 student takes a taxi to school.
- 54 students walk to school.
- 42 students cycle to school.
- Some students live on the school campus.

— Example –

Name:

How many students do not live on the school campus?

76 + 1 + 54 + 42 = 173

173 _____ students do not live on the school campus.

10. How many students live on the school campus? _____

11. Complete the table.

Mode of Transportation	Bus	Taxi	Walk	Cycle
Number of Students		no settado s	n hangen af re	at 2_

12. Which is the least used mode of transportation?

13. How many students take the bus or cycle to school? _____

14. How many more students walk to school than cycle? _____

Complete the table.

The table shows the number of red and green apples sold on Monday through Friday.

Day	Number of Green Apples	Number of Red Apples	Total Number of Apples
Monday	60	80 - 60 = 20	80
Tuesday	15	50	str. em ser S
Wednesday	30		100
Thursday	ool ucmpusd	70	120
Friday	40		
Total	95		600

Number of Apples Sold on Monday Through Friday

15. On which day was the greatest number of apples sold? _____

16. On which day was the least number of apples sold? _____

- 17. Which type of apples sold the most? _____
- 18. On which day was the number of green apples sold three times the number of red apples sold? _____
- **19.** How many more apples were sold on Friday than on Tuesday?

Worksheet 3 Line Graphs

Complete. Use data from the line graph.

The line graph shows the price of mangoes.

Price of Mangoes 450 400 350 Price of Mangoes (cents) 300 Vertical axis 250 200 150 100 50 0 2 3 4 5 6 1 Number of Mangoes Horizontal axis Example What is the cost of 1 mango? Find 1 along the horizontal axis. Step 1 Move up until you meet a point on the graph. Step 2 From that point on the graph, move left until Step 3 you meet the vertical axis. The point on the vertical axis is 75 cents. Step 4 1 mango costs 75 cents

CI	m	e	5	
-		-	-	

N

1. Find the cost of 6 mangoes. Give your answer in dollars and cents.

6 mangoes cost _____

2. Jerry pays \$3.75 for some mangoes. How many mangoes does he buy?

Jerry buys _____ mangoes.

Complete. Use data from the line graph.

The line graph shows the amount of water left in a family's water tank at the end of each day.



Friday and on Sunday? _____ liters

Name:

Between which two days was the decrease in the amount of water left in 5. a. the tank the greatest?

> _____ and _____ Between _

What was the decrease in the amount of water? _____ liters b.

There are 4 members in the family. Each family member uses the same amount 6. of water. How much water does each family member use from Monday through Sunday?

Each family member uses _____ liters of water.

Complete. Use data from the line graph.

hung on it.

The line graph shows the length of a rubber band when various masses are



Name:		Date:
E	xample –	
		ch mass is hung on the rubber band when the length of the rubber 45 centimeters?
	Step 1	Find 45 centimeters along the vertical axis.
	Step 2	Move right until you meet a point on the graph.
	Step 3	Move down from that point until you meet the horizontal axis.
	Step 4	The point on the horizontal axis is 30 grams.
	3(grams is hung on the rubber band.

- 7. How much mass is hung on the rubber band when the length of the rubber band is 60 centimeters?
- 8. How much mass is hung on the rubber band when the length of the rubber band is 75 centimeters?
- 9. What is the length of the rubber band when a 10-gram mass is hung on it?
- 10. What is the length of the rubber band when a 20-gram mass is hung on it?



Worksheet 1 Average

Find the mean or average of each set of data.



The average volume of the containers is _____ milliliters.



Date:

3. A bottle of milk is poured into 8 smaller cartons. The mean volume of milk in each carton is 375 milliliters. What is the total volume of milk in the cartons?

4.

Mrs. Ellis spent an average of \$28 on a book. She bought 185 books for the school library. What is the total amount of money Mrs. Ellis spent?

5.

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Mary walks to school every day. She walks an average distance of 750 meters each day. What is the total distance Mary walked in 5 days?

Total distance Mary walked in 5 days

= _____ × _____ = _____ m

She walked _____ meters in 5 days.

- Name:
- **6.** The arm lengths of 7 students are measured during a math class. The average length of their arms is 68 centimeters. Find the total length of their arms.

7. The table shows the scores Joe received for four tests.

Test	First	Second	Third	Fourth
Score	67	74	?	92

Joe's mean score for the four tests is 79.

a. Find the total score for the four tests.

b. What is Joe's score for the third test?

Complete. Use the data in the table.

The table shows the number of basketball games that Rudd played in during two years.

Opponent	Number of games
Dallas	10
Lancaster	9
Chicago	13
Seattle	11
Washington	15

Example –

Rudd played _____11 ____ games against Seattle.

- **8.** Rudd played the most games against _____.
- **9.** Rudd played a total of _____ games in two years.
- **10.** The average number of games Rudd played a year is ______.

Date:

Name:

Solve.

Calvin bought 1 kilogram of each type of nut.





11. How much did he pay altogether?

12. Find the average price of a kilogram of nuts.

Worksheet 5 Probability as a Fraction

Find the probability as a fraction in simplest form.

Shawn made a spinner with 6 equal parts. He labeled each part with the numbers 1 through 6. Shawn spins the spinner once.



Name:

ame	: Date:
	The probability of landing on an odd number.
	The odd numbers are,, and
	Number of favorable outcomes =
	Number of possible outcomes $= 6$
	Probability of landing on an odd number
	$= \frac{\text{Number of favorable outcomes}}{\text{Total number of possible outcomes}} = \frac{6}{6} = \frac{6}{6}$
	The probability of landing on an odd number is
	The probability of landing on a number less than 5.
	The numbers less than 5 are,,, and,
	Number of favorable outcomes =
	Number of possible outcomes =
	Probability of landing on a number less than 5
	$= \frac{\text{Number of favorable outcomes}}{\text{Total number of possible outcomes}} = \frac{6}{6} = \frac{6}{6}$

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Name	: Date:	
3.	The probability of landing on a number greater than 3.	
	The numbers greater than 3 are,, and	
	Number of favorable outcomes =	
	Number of possible outcomes =	
	Probability of landing on a number greater than 3	
	$= \frac{\text{Number of favorable outcomes}}{\text{Total number of possible outcomes}} = \boxed{} = \boxed{}$	
	-	 3. The probability of landing on a number greater than 3. The numbers greater than 3 are,, and Number of favorable outcomes = Number of possible outcomes = Probability of landing on a number greater than 3 Number of favorable outcomes

The probability of landing on a number greater than 3 is _____.

Find each probability on the number line as a fraction in simplest form. Then describe the probability of each outcome as *certain*, *impossible*, *more likely*, *less likely*, or *equally likely*.

There are 5 red cubes, 3 green cubes, and 2 yellow cubes in a bag. One cube is drawn from the bag.



4. The probability of drawing a red cube.





5.

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The probability of drawing a yellow cube.



6. The probability of drawing a red cube or a yellow cube.



Find the probability of each outcome. Then describe the outcome as certain, impossible, more likely, less likely, or equally likely.

Joyce has a set of 10 animal cards. There are 5 dog cards, 2 cat cards, 2 rabbit cards, and 1 bird card in the set. She shuffles the cards, places them face down in a stack, and draws the first card from the top of the stack.



Worksheet 6 Real-World Problems: Data and Probability

Solve each problem using the mean. Show your work.



Date:

The total cost of 10 toys is \$780.
 The mean cost of 3 of the toys is \$40.
 The mean cost of 5 of the other toys is \$50.
 Find the mean cost of the remaining 2 toys.



Name:	Date:
3.	The mean mass of a goat and a sheep is 78 kilograms. The sheep is 6 kilograms heavier than the goat. Find the mass of each animal.
	Goat
	Total mass of the goat and sheep = 2 × =
	2 units → Total mass = =
	1 unit → 2 = The mass of the goat is kilograms. + 6 kg = The mass of the sheep is kilograms.

Date:	
-------	--

Solve each problem to find the mean, median, mode, and range. Show your work.

A gardener delivered roses to 6 florists.
 He delivered 684 roses altogether.
 He recorded the data in a table, but the last row of data could not be read because the ink was smudged.

Florist	Number of Roses
A	108
В	156
С	96
D	120
E	84
F	?

— Example —	
Find the mean number of roses he delivered.	
Mean $= \frac{684}{6} = 114$	
The mean number of roses	
he delivered is <u>114</u> .	

a. How many roses did he deliver to Florist F? Number of roses delivered to 5 florists

Number of roses delivered to Florist F

= Total number of roses - _____

= _____ - ____

The number of roses he delivered to Florist F is _____.

= _____ + _____ + _____ + _____ + _____

Find the range of the number of roses he delivered. b. Range = Greatest number - Least number_____ = The range of the number of roses delivered is _____ Find the mode of the set of data. C. The mode of the set of data is _____ Find the median of the set of data. d. Order the numbers from least to greatest. The middle numbers are _____ and _ + Mean = 2 The median of the set of data is _____.

Name:

Use average or mean

Ο 。

to find the total.

è

Name:

5. In a javelin competition, Sam threw the javelin 5 times. The table shows the distance the javelin traveled on each throw. The recorder misplaced 2 of the 5 readings.

Throw	1	2	3	4	5
Distance	68 m	72 m	66 m	?	?

Help the recorder to find the two missing readings using this information.

The range of the data is 8 meters. The shortest distance thrown is 66 meters. The mean distance thrown is 70 meters.

a. Find the longest distance the javelin was thrown.

Range = Longest distance - Shortest distance

Longest distance = _____ + ____ = ____

The longest distance the javelin was thrown is _____ meters.

b. Find the missing data.

Total distance

- = mean distance imes number of throws
- = _____ × 5 = _____
- The missing data

=

= total distance – distance of the 4 throws

= _____ - 68 m - 72 m - 66 m - _

The missing data is _____ meters.

c. Find the median distance of the 5 throws.

Order the distances from least to greatest.



The median distance is _____ meters.

Solve each problem using a stem-and-leaf plot.

6. Mr. Williams deposits money in his bank account once a month for 12 months.

Amount of Money				
	Stem	Leaves		
	6	368		
X	7	2 ?		
×	8	0449		
X	9	127		

6 | 3 stands for <u>63</u>

– Example -

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The mean amount of money he deposits each month is \$80. Find the total amount of money he deposits in 12 months.

Total amount of money = Mean \times Number of months = $\$80 \times 12$ = \$960

He deposits <u>\$960</u> in 12 months.

a. Find the missing data in stem 7.

Total amount – Amount of money deposited in 11 months

The missing data in stem 7 is \$_____.

b. The mode of the set of data is _____.

c. The median of the set of data is _____.

d. The range of the set of data is _____.

Solve. Show your work.

7. The line plot shows the weight of watermelons (rounded to the nearest pound) sold at a supermarket. Each X represents 1 watermelon.



a. The mode of the set of data is _____ pounds.

- **b.** The median weight of the watermelons is _____ pounds.
- **c.** Each pound of watermelon costs \$3. What is the total cost of all the watermelons?

The total cost of all the watermelons is \$_____

N	~	m	0	2
1.4	-u	225		H

Solve each problem by finding the probability or by describing the outcome. Show your work.

A bag contains 16 marbles.
6 marbles are red, 5 are blue, 3 are green, and 2 are yellow.

— Example

Sylvia draws 1 marble from the bag. What is the probability that the marble is red?

Number of favorable outcomes = 6 Number of possible outcomes = 16

Probability of drawing a red marble $=\frac{6}{16}=\frac{3}{8}$

The probability that the marble is red is _____

a. Sylvia returns the red marble to the bag. Then she draws 2 marbles from the bag, one at a time. Describe the outcome as *certain*, *impossible*, *more likely*, *less likely*, or *equally likely*.

It is ______ that the first marble is yellow.

If the first marble is green, it is ______ that the second marble is yellow or green.

If the first marble is red, it is ______ that the second marble is red, yellow, or green.

iv. If the first marble is blue, it is ______ that the second marble is red, blue, green, or yellow.

- b. Sylvia returns the 2 marbles to the bag, and Tyron adds 1 blue marble and 3 green marbles to the bag. He then draws 1 marble from the bag. Find the probability as a fraction in simplest form.
 - What is the probability that a red marble is drawn?

Number of favorable outcomes = _____

Number of possible outcomes = 16 + 1 + 3 =_____

Probability of drawing a red marble



The probability that a red marble is drawn is _____.

ii. What is the probability that Tyron draws a red, blue, or green marble?

Number of favorable outcomes = _____

Number of possible outcomes = _____



The probability that Tyron draws a red, blue, or green marble is _____.

Worksheet 8 Real-World Problems: Fractions

Solve. Show your work.

Name:



1.

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Lisa, Sam, and Marco each bought some dried fruit. Lisa bought $\frac{2}{3}$ pound of dried fruit. Sam and Marco each bought $\frac{5}{6}$ pound of dried fruit. How much dried fruit did they buy altogether?

$$\frac{2}{3} + \frac{5}{6} + \frac{5}{6} = \boxed{ + \frac{5}{6} + \frac{5}{6}} = \boxed{ = \boxed{ = } = \boxed{ = } = \boxed{ = }$$

They bought _____ pounds of dried fruit altogether.

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Name:

2. Mrs. Jackson baked muffins one day. She used ¹/₄ kilogram of flour to bake the first batch of muffins. She used ⁷/₁₂ kilogram of flour to bake the second batch, and another ¹¹/₁₂ kilogram of flour for the third batch. How much flour did she use altogether?

$$\frac{1}{4} + \frac{7}{12} + \frac{11}{12} = \left[\right] + \frac{7}{12} + \frac{11}{12}$$
$$= \left[\right] = \left[\right]$$

She used ______ kilograms of flour altogether.

3. Edison made a fruit salad. He mixed $\frac{7}{12}$ pound of apples and $\frac{3}{4}$ pound of strawberries. He then added $\frac{5}{12}$ pound of banana. What was the total weight of the fruit salad?



Sam spent $\frac{1}{3}$ of his time playing soccer and $\frac{4}{9}$ of his time doing homework. He spent the rest of his time playing computer games. How much of his time did Sam spend playing computer games?



Sam spent _____ of his time playing computer games.

4.

5. Latoya bought a pizza. She ate $\frac{1}{6}$ of the pizza and gave $\frac{1}{3}$ of it to her sister. She kept the rest of the pizza for her grandmother. How much of the pizza did Latoya keep for her grandmother?



Latoya kept _____ of the pizza for her grandmother.

6. Pam made mixed juice from carrot juice and apple juice. She filled a jug with $\frac{7}{8}$ liter of carrot juice and $\frac{3}{4}$ liter of apple juice. Pam then drank $\frac{3}{8}$ liter of the mixed juice. Find the amount of mixed juice that was left in the jug.



___ liters of mixed juice was left in the jug.

Date:

Example -

Ling bought a total of 12 apples. Of the apples she bought, 8 are red apples and 4 are green apples.

- **a.** What fraction of the apples are red?
- **b**. What fraction of the apples are green?



7. Elan has a bag of 10 marbles. He gives 4 marbles to his brother.





8. Bernice has a ribbon that is 12 centimeters long. She cuts 8 centimeters off the length of the ribbon. What fraction of the ribbon is left?



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9. Winton was given \$14 to spend at his school fair. He spent ³/₇ of the money playing games. How much money did Winton have left?



10. Chris planted carrots on ⁵/₉ of his farm and tulips on the rest of the land.
 The total area of his farm is 621 square meters.

Find the area of the land on which he planted tulips.



Method 1

Name:

Date:

11. Of all the seats in an airplane, $\frac{1}{3}$ are business-class seats, and the rest are economy class seats.

There are 156 seats in the airplane. Find the number of economy class seats.



Method 1

Name:

Method 2