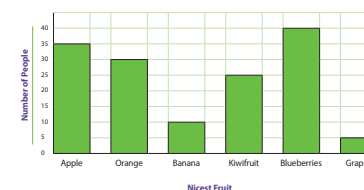
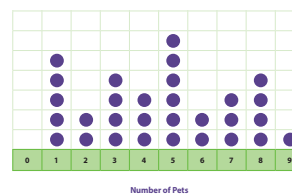
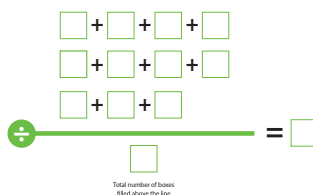
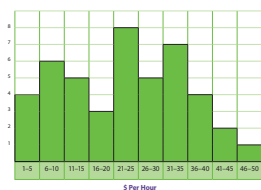


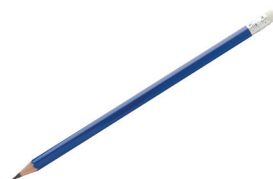
# Descriptive Statistics



1. Circle the pictures of graphs.



2. Which pencils are horizontal? Put an X on them.



3. Circle the pencil that is vertical.



4. Fill in the blanks:

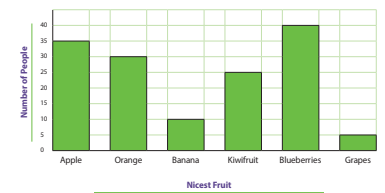
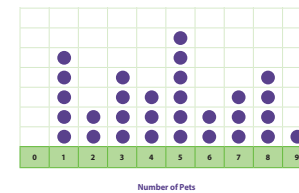
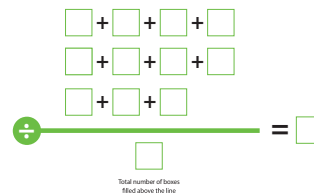
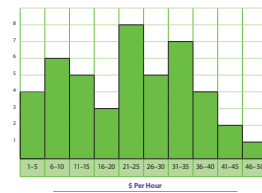
The mean is the \_\_\_\_\_.

The mode is the \_\_\_\_\_.

The x-axis is a \_\_\_\_\_ line.

The y-axis is a \_\_\_\_\_ line.

5. Circle the dot plot. Put an X on the histogram.











6. Fill in the blanks:

A line going from side to side like the horizon is \_\_\_\_\_.

A line going up and down like a tall tree is \_\_\_\_\_.

## Task Analysis

(✓)	Step	Task
<input type="checkbox"/>	<b>STEP 1</b> 	Listen to or read the math story.
<input type="checkbox"/>	<b>STEP 2</b> 	Identify the problem.
<input type="checkbox"/>	<b>STEP 3</b> 	Title the axis on the graph.
<input type="checkbox"/>	<b>STEP 4</b> 	Set up the graph. <ul style="list-style-type: none"> <li>• Determine the spread.</li> <li>• Add number or interval values to the graph.</li> </ul>
<input type="checkbox"/>	<b>STEP 5</b> 	Graph the data. <ul style="list-style-type: none"> <li>• Plot the dots (for a dot plot).</li> <li>• Draw bars (for a histogram).</li> </ul>
<input type="checkbox"/>	<b>STEP 6</b> 	Calculate the <b>mode</b> (the value or interval with the most). Add the mode to the Data Table.
<input type="checkbox"/>	<b>STEP 7</b> 	Calculate the <b>mean</b> (the average). Add the mean to the Data Table.
<input type="checkbox"/>	<b>STEP 8</b> 	Analyze the data and state the solution to the math story problem.

## STEP 1



Listen to or read the math story.

## STEP 2



Identify the problem.

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### Math Story

Zane has a basketball game against a rival team on Friday. His coach told the team to get plenty of rest. Zane wants to be sure he is rested for the game, but he likes to stay up late at night playing video games. He usually gets about 6 hours of sleep per night. He wonders if this is enough sleep to feel well-rested. He decides to ask several of his classmates how many hours of sleep per night they usually get. He will then compare the data he collects from his friends to how many hours he sleeps and decide if he is getting enough sleep.

Zane asked 10 of his classmates who seem to be well-rested how many hours per night they usually sleep. Here is the data set Zane collected:

### Data Set

9 hours    10 hours    7 hours    8 hours    9 hours

9 hours    5 hours    8 hours    10 hours    9 hours



### STEP 3

TITLE  
THE  
AXIS

Title the axis on the graph.

### STEP 4



Set up the graph.

### STEP 5



Graph the data.

### STEP 6

MODE  
MOST

Calculate the **mode** (the value or interval with the most). Add the mode to the Data Table.

## Dot Plot



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### STEP 7 $\frac{M+E+A+N}{4}$

Calculate the **mean** (the average). Add the mean to the Data Table.

## Mean

<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<div>÷</div>	_____							=	<input type="text"/>
	<input type="text"/>								

Total number of boxes  
filled above the line

## STEP 8









Analyze the data and state the solution to the math story problem.

### Data Table

		Answer
<b>Mode</b> <b>MODE</b> <b>MOST</b>	<b>MOST</b> frequent value on the dot plot	
<b>Mean</b> $\frac{M+E+A+N}{4}$	<b>AVERAGE</b> ____ + ____ + ____ + ____ + ____ /# of boxes =	
Is 6 hours of sleep per night enough for Zane to feel well-rested?		
Based on the data he collected, how many hours of sleep do you think Zane should try to get each night?		



## Task Analysis

(✓)	Step	Task
<input type="checkbox"/>	<b>STEP 1</b> 	Listen to or read the math story.
<input type="checkbox"/>	<b>STEP 2</b> 	Identify the problem.
<input type="checkbox"/>	<b>STEP 3</b> 	Title the axis on the graph.
<input type="checkbox"/>	<b>STEP 4</b> 	Set up the graph. <ul style="list-style-type: none"> <li>• Determine the spread.</li> <li>• Add number or interval values to the graph.</li> </ul>
<input type="checkbox"/>	<b>STEP 5</b> 	Graph the data. <ul style="list-style-type: none"> <li>• Plot the dots (for a dot plot).</li> <li>• Draw bars (for a histogram).</li> </ul>
<input type="checkbox"/>	<b>STEP 6</b> <b>MODE MOST</b>	Calculate the <b>mode</b> (the value or interval with the most). Add the mode to the Data Table.
<input type="checkbox"/>	<b>STEP 7</b> $\frac{M+E+A+N}{4}$	Calculate the <b>mean</b> (the average). Add the mean to the Data Table.
<input type="checkbox"/>	<b>STEP 8</b> 	Analyze the data and state the solution to the math story problem.

## STEP 1



Listen to or read the math story.

## STEP 2



Identify the problem.

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## Math Story

Tameka has a new cell phone. Her parents signed up for a phone plan that gives her unlimited minutes to talk on the phone, but only 10 texts per week. Tameka asked her parents to please change the plan to limit the time she can talk on the phone and give her unlimited texts instead. Her parents said, "No." They are afraid she will talk on the phone much more than she thinks and they will be charged extra money. Tameka decides to use data to try to change her parents' minds.

Tameka asks 9 of her friends how much they talk on their phones each week. Then, she asks them to count the number of texts they sent last week so she can use statistics to show her parents how many texts per week most teens send. Here is what they answered:

## Data Set

Only 1 friend talked on her phone at all, and it was just to call home for a ride.

All 9 friends sent texts the previous week:

37 texts   41 texts   32 texts   41 texts   40 texts

40 texts   35 texts   40 texts   36 texts



### STEP 3

TITLE  
THE  
AXIS

Title the axis on the graph.

### STEP 4



Set up the graph.

### STEP 5



Graph the data.

### STEP 6

MODE  
MOST

Calculate the **mode** (the value or interval with the most). Add the mode to the Data Table.

## Dot Plot



## STEP 7 $\frac{M+E+A+N}{4}$

Calculate the **mean** (the average). Add the mean to the Data Table.

### Mean

<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<div><div><div>÷</div></div><div></div></div>								=	<input type="text"/>
<div><input type="text"/></div>									

Total number of boxes  
filled above the line

## STEP 8











Analyze the data and state the solution to the math story problem.

### Data Table

		Answer
<b>Mode</b> <b>MODE</b> <b>MOST</b>	<b>MOST</b> frequent value on the dot plot	
<b>Mean</b> $\frac{M+E+A+N}{4}$	<b>AVERAGE</b> ____ + ____ + ____ + ____ + ____ /# of boxes =	
Based on the evidence Tameka collected, is the number of texts per week her friends send more or less than the number of texts Tameka is allowed to send each week?		
Do you think the statistics Tameka gathered will change her parents' minds about switching to a different phone plan?		

## Task Analysis

(✓)	Step	Task
<input type="checkbox"/>	<b>STEP 1</b> 	Listen to or read the math story.
<input type="checkbox"/>	<b>STEP 2</b> 	Identify the problem.
<input type="checkbox"/>	<b>STEP 3</b> 	Title the axis on the graph.
<input type="checkbox"/>	<b>STEP 4</b> 	Set up the graph. <ul style="list-style-type: none"> <li>• Determine the spread.</li> <li>• Add number or interval values to the graph.</li> </ul>
<input type="checkbox"/>	<b>STEP 5</b> 	Graph the data. <ul style="list-style-type: none"> <li>• Plot the dots (for a dot plot).</li> <li>• Draw bars (for a histogram).</li> </ul>
<input type="checkbox"/>	<b>STEP 6</b> 	Calculate the <b>mode</b> (the value or interval with the most). Add the mode to the Data Table.
<input type="checkbox"/>	<b>STEP 7</b> 	Calculate the <b>mean</b> (the average). Add the mean to the Data Table.
<input type="checkbox"/>	<b>STEP 8</b> 	Analyze the data and state the solution to the math story problem.

## STEP 1



Listen to or read the math story.

## STEP 2



Identify the problem.

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### Math Story

James is starting to investigate job options for when he graduates from high school. He is interested in working at a local bookstore. He is also interested in working in a local business office. Although he thinks he would like both jobs, he wants to know more about how much money each job typically pays. The more money a job pays per hour, the more money James will earn in each paycheck.

To determine which job he should apply for to earn the most money he can, James asked 20 people—10 from each job—how many dollars they make per hour. The data sets below show their answers.



#### Data Set #1: Bookstore Workers

James asked 10 people who work at local bookstores how much money they make per hour. Here's what they said:

\$10.00	\$9.00	\$8.00	\$9.00	\$10.00
\$10.00	\$9.00	\$10.00	\$11.00	\$12.00



#### Data Set #2: Office Workers

James asked 10 people who work at a business office how much money they make per hour. Here's what they said:

\$10.00	\$10.00	\$12.00	\$11.00	\$13.00
\$10.00	\$9.00	\$9.00	\$9.00	\$9.00



## Dot Plot Data Set #1

### STEP 3

**TITLE  
THE  
AXIS**

Title the axis on the graph.

### STEP 4



Set up the graph.

### STEP 5

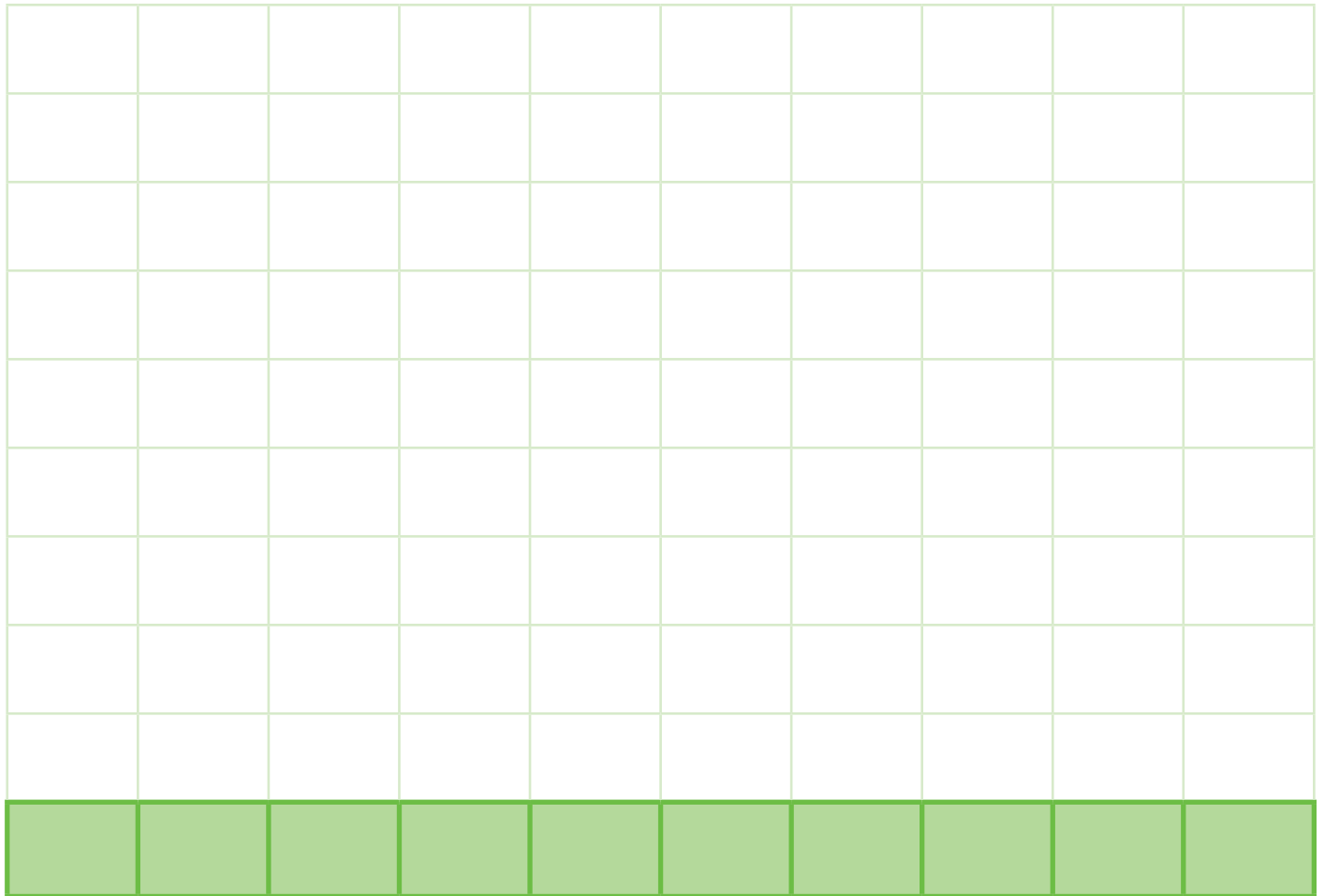


Graph the data.

### STEP 6

**MODE  
MOST**

Calculate the **mode** (the value or interval with the most). Add the mode to the Data Table.

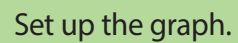






# TITLE THE AXIS

## STEP 4



Music Type	Number of People
Rock	5
Pop	7
Jazz	3
Classical	8

Graph the data.

## MODE MOST

Calculate the **mode** (the value or interval with the most). Add the mode to the Data Table.

[illegible]



### Mean Data Set #1

#### STEP 7 $\frac{M+E+A+N}{4}$

Calculate the **mean** (the average). Add the mean to the Data Table.

$$\square + \square + \square + \square + \square$$
$$\square + \square + \square + \square + \square$$


=

$$\square$$
$$\square$$

Total number of boxes  
filled above the line



### Mean Data Set #2

#### STEP 7 $\frac{M+E+A+N}{4}$

Calculate the **mean** (the average). Add the mean to the Data Table.

<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	+	<input type="text"/>	
<div>÷</div>	<hr/>							=	<input type="text"/>
	<input type="text"/>								



Total number of boxes  
filled above the line

## STEP 8



Analyze the data and state the solution to the math story problem.

### Data Table

	Answers	
	Bookstore Workers (Data Set #1)	Office Workers (Data Set #2)
		
<b>Mode</b> <b>MODE</b> <b>MOST</b>	<b>MOST</b> frequent value on the dot plot	
<b>Mean</b> $\frac{M+E+A+N}{4}$	<b>AVERAGE</b> ____ + ____ + ____ + ____ + ____ / # of boxes =	
Do both jobs pay at least 1 worker \$9.00 per hour?		
Based on the data he collected, which job should James apply for to try to earn the most money he can?		