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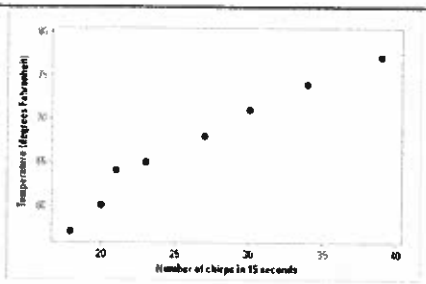
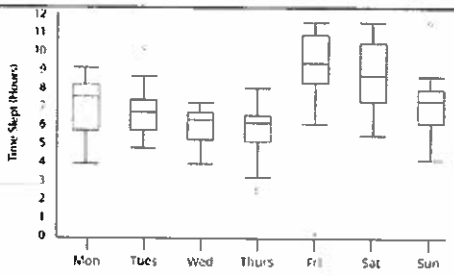
Causal or Descriptive Studies & Variables 3.2

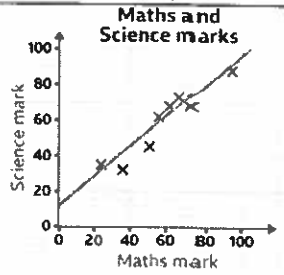
Name: ...S.O.lutions.....

1. ● Name the graph type (Word Bank: box and whisker, scatterplot, histogram, pie).

(a) Scatterplot	(b) Box and Whisker	(c) Scatterplot







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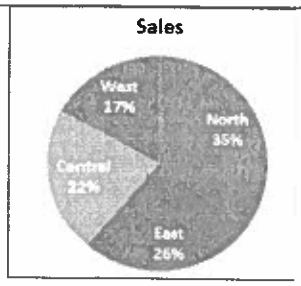
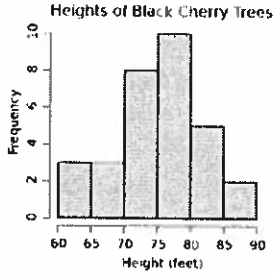
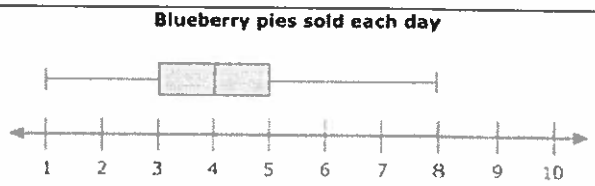
(d) Pie chart	(e) Histogram	(f) Box and Whisker Chart







2. ● Classify each graph as 2-variable (Causal) or 1-variable (Descriptive) research. Circle the best answer.

(a)	Box and Whisker Graph	Causal (2-var)	Descriptive (1-var)
(b)	Pie Chart	Causal (2-var)	Descriptive (1-var)
(c)	Scatterplot	Causal (2-var)	Descriptive (1-var)
(d)	Histogram	Causal (2-var)	Descriptive (1-var)

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3. ● Classify each calculation as 2-variable (Causal) or 1-variable (Descriptive) research. Circle the best answer.

(a)	Median, mode, mean	Causal (2-var)	Descriptive (1-var)
(b)	Slope	Causal (2-var)	Descriptive (1-var)
(c)	Line of Best Fit	Causal (2-var)	Descriptive (1-var)

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4. ☺ Circle the variables in each causal research question. Identify the variables studied at the end.

	Research Question (circle variables)	Variable 1	Variable 2
(a)	Does an increase in temperature cause an increase in Halloween Lady Bugs?	temperature	Count of Halloween Lady Bugs
(b)	Does an earlier ice-off date cause a decrease in fish eggs laid that season?	ice-off date	count of fish eggs
(c)	Does an increase in carrots eaten per month cause an improvement in distance letters can be read?	count of carrots eaten	distance letters can be read.

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5. ☺ Circle the variable in each descriptive research question. Identify the variables studied at the end.

	Research Question (circle variable)	Variable
(a)	What is the average age of teachers at BCSS?	age
3 (b)	How many cm is the tallest person in Tokyo, Japan?	height
(c)	What is the median test score in Calculus this semester?	test score in Calculus

6. ✓ Classify each research question as 2-variable (Causal) or 1-variable (Descriptive): Circle the best answer.

(a)	Does acid rain cause lower weights in fish?	Causal (2-var)	Descriptive (1-var)
(b)	How many fish are in the lake?	Causal (2-var)	Descriptive (1-var)
5 (c)	How healthy are the fish in the lake?	Causal (2-var)	Descriptive (1-var)
(d)	Does the number of stonefly larvae decrease as the pollution in the water increases?	Causal (2-var)	Descriptive (1-var)
(e)	How tall is the largest tree in the forest?	Causal (2-var)	Descriptive (1-var)

7. ☺ Read the following description. Answer the following questions about it.

In a 2020 survey by the Harris Poll, 1,005 U.S. hiring decision makers were contacted using the email address posted on their companies' website. 70% of employers who responded said they screen job applicants' social media profiles during the hiring process. Moreover, 78% believed that employees should maintain a work-appropriate social media profile.

a) One or Two variable?	One variable
b) Causal or Descriptive?	Descriptive
c) How much Replication?	1005
7 d) What is the research question?	Does an applicant's social media influence hiring decisions?
e) Identify the variables data was collected about.	① scan social media? ② require work-appropriate social media
f) Was there randomization? If so, where?	No.
g) Identify a calculation from the analysis phase.	70% screen social media profiles 78% believe in appropriate social media profile

8. ☺☺ This is a map of a heat wave in North America. The different colours show different temperatures.

3 a) Causal or Descriptive?	Descriptive
b) What is the research question?	Where is the heat wave?
c) Identify **three** variables data was collected about.	1. Latitude 2. Longitude 3. Temperature