# Fourth Grade
## Answer Key
## Unit 8: Data & Financial Literacy

Page 2 Blackline Masters
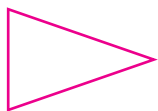Page 23 Cards

# Problem of the Day

## Lesson 1

Mrs. Robertson drew a quadrilateral on the board that had one set of parallel lines, but no sides of equal length. What shape did Mrs. Robertson draw?

**A.** trapezoid

**B.** rhombus

**C.** rectangle

**D.** parallelogram

## Lesson 2

Draw an example of a scalene triangle.

Draw an example of an isosceles triangle.

## Lesson 3

Examine the table below. What is the frequency of the color green?

| FAVORITE COLORS | | | |
|---|---|---|---|
| yellow | red | green | black |
| blue | red | yellow | red |
| black | blue | green | blue |

Answer: _____ 2 _____

## Lesson 4

Examine the table below.

| FAVORITE PET | | | | |
|---|---|---|---|---|
| cat | dog | cat | bird | dog |
| cat | cat | dog | dog | bird |
| dog | dog | bird | dog | cat |
| dog | bird | bird | cat | dog |

Complete the frequency table below.

| FAVORITE PET | | |
|---|---|---|
| PET | TALLY | FREQUENCY |
| cat | ℍℍ | 5 |
| dog | ℍℍ ℍℍ | 10 |
| bird | ℍℍ | 5 |

## Lesson 5

Examine the table below and use the data to create a dot plot.

| PETALS ON DAISIES | | | | | |
|---|---|---|---|---|---|
| DAISY | NUMBER OF PETALS | DAISY | NUMBER OF PETALS | DAISY | NUMBER OF PETALS |
| A | 5 | D | 5 | G | 4 |
| B | 6 | E | 6 | H | 5 |
| C | 4 | F | 6 | I | 6 |

NUMBER OF PETALS
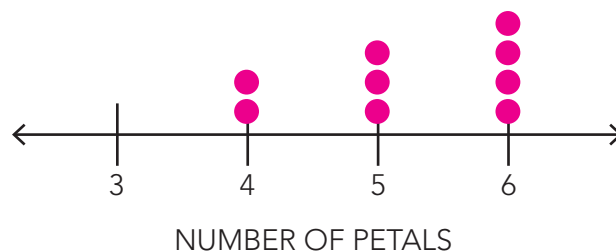
# Problem of the Day

## Lesson 6

Use the dot plot from Lesson 5:

1. How many daisies have 5 or more petals?

   Answer: _____7_____

2. How many more daisies have 4 and 6 petals than 5 petals?

   Answer: _____3_____

## Lesson 7

Using the numbers below, create a stem and leaf plot.

6, 8, 10, 12, 3, 8, 12, 15, 18, 10, 13, 6, 2, 10

| STEM | LEAF |
|------|------|
| 0 | 2, 3, 6, 6, 8, 8 |
| 1 | 0, 0, 0, 2, 2, 3, 5, 8 |

KEY: 1|0 = 10

## Lesson 8

Using the stem and leaf plot below, write out all the numbers.

| STEM | LEAF |
|------|------|
| 2 | 4, 7, 9, 9 |
| 3 | 0, 0, 3, 5, 6, 9 |

KEY: 3|0 = 30

Numbers: 24, 27, 29, 29, 30, 30, 33, 35, 36, 39

## Lesson 9

STUDENTS FROM EACH CAMPUS

| STEM | LEAF |
|------|------|
| 0 | 4, 6, 8, 9 |
| 1 | 0, 0, 3, 4, 7 |
| 2 | 0, 0, 0, 0, 4 |
| 3 | 2, 2, 5, 7 |
| 4 | 0, 0, 8, 8, 9, 9 |

KEY: 2|0 = 20

Using the stem and leaf plot above, how many campuses were polled for their number of students?

Answer: _____24 campuses_____

## Lesson 10

Use the stem and leaf plot from Lesson 9 to answer the following questions.

1. How many campuses had 20 or more students?

   _____15 campuses_____

2. How many campuses had 0–19 students?

   _____9 campuses_____

3. How many campuses had 40 or more students?

   _____6 campuses_____

# Problem of the Day

## Lesson 11
Create your own frequency table.

**Answers will vary.**

| | | | | |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

## Lesson 12
Using the data you wrote in your frequency table in Lesson 11, create a dot plot.

**Answers will vary.**

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## Lesson 13
Create two questions about your dot plot from Lesson 12 and answer them. **Answers will vary.**

1.

Answer: _____

2.

Answer: _____

## Lesson 14
Trenton spent $45.00 on his first gas fill up, $52.99 on this second gas fill up, and $49.65 on his third gas fill up. How much money did Trenton spend on all three gas fill ups?

Answer: ____**$147.64**_____

## Lesson 15
Carson earned $150.75 trimming trees. He wants to buy a helmet for $55.55 and new sneakers for $75.99. How much money will Carson have remaining after he buys the helmet and shoes?

Answer: ____**$19.21**_____

# Problem of the Day

**Answers will vary.**

### Lesson 16
Write three types of fixed expenses:

rent          taxes

car payment

Write down three types of variable expenses:

groceries        clothing

entertainment

### Lesson 17
Drew had $115.70 in his bank account. He made a purchase for $89.45 with his debit card. How much money does Drew have remaining in his account?

Answer: **$26.25**

### Lesson 18
Xavier made a TV stand and sold it for $250.00. If he had to spend $40.95 on supplies, how much profit did Xavier make?

Answer: **$209.05**

### Lesson 19
Jackie went to the store and purchased $30.35 in art supplies. She made a painting that sold for $485.25. How much of a profit did Jackie make on her painting?

Answer: **$454.90**

### Lesson 20
Marcus had $909.65 in his bank account. He withdrew $300.25 for new clothes. He then deposited $143.75 into his account. How much money is in Marcus' bank account now?

Answer: **$753.15**

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# Pre-Assessment

Examine the data below to analyze and complete the table.

| FAVORITE SEASON | | | | |
|---|---|---|---|---|
| fall | spring | spring | summer | winter |
| fall | fall | summer | summer | winter |
| winter | spring | summer | spring | spring |
| winter | fall | fall | winter | winter |
| fall | spring | summer | summer | fall |

| FAVORITE SEASON | | |
|---|---|---|
| SEASON | TALLY | FREQUENCY |
| spring | HHI I | **6** |
| summer | HHI I | **6** |
| fall | HHI II | **7** |
| winter | HHI I | **6** |

**1.** How many people answered the survey?

_____**25 people**_____

**2.** Which season was the most popular?

_____**fall**_____

Examine the data below to analyze and complete the dot plot.

| STUDENT SIBLINGS | | | | | |
|---|---|---|---|---|---|
| STUDENT | NUMBER OF SIBLINGS | STUDENT | NUMBER OF SIBLINGS | STUDENT | NUMBER OF SIBLINGS |
| A | 2 | E | 2 | I | 0 |
| B | 3 | F | 2 | J | 3 |
| C | 0 | G | 1 | K | 2 |
| D | 1 | H | 1 | L | 1 |



STUDENT SIBLINGS
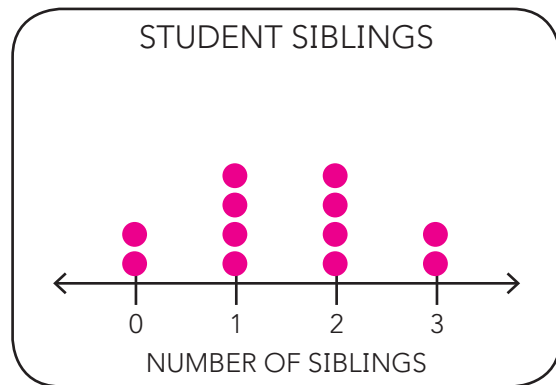
NUMBER OF SIBLINGS

**3.** What number of siblings is the least frequent?

_____**0 and 2 siblings**_____

**4.** What is the total number of students who have 1 and 2 siblings?

_____**8 students**_____

**5.** How many more students have 2 siblings than 0 siblings?

_____**2 more students**_____

# Frequency Table

| FAVORITE PET | | | | | |
|---|---|---|---|---|---|
| cat | dog | bird | cat | bird | dog |
| fish | cat | bird | dog | cat | dog |
| dog | fish | dog | hamster | dog | hamster |
| hamster | cat | bird | hamster | bird | dog |
| bird | fish | dog | cat | cat | cat |

| FAVORITE PET | | |
|---|---|---|
| KIND OF PET | TALLIES | FREQUENCY |
| cat | ‖‖‖ ‖‖ | 8 |
| fish | ‖‖‖ | 3 |
| dog | ‖‖‖ ‖‖‖‖ | 9 |
| hamster | ‖‖‖‖ | 4 |
| bird | ‖‖‖‖ ‖ | 6 |

**1.** Complete the frequency table.

**2.** How many people answered the pet survey?

Answer:_____**30 people**_____

**3.** Which pet was chosen the most often and least often?

Most:_____**dog**_____

Least:_____**fish**_____

# Dot Plot

| GRADE LEVELS OF STUDENTS | | | | | |
|---|---|---|---|---|---|
| STUDENT | GRADE | STUDENT | GRADE | STUDENT | GRADE |
| A | kinder | G | second | M | first |
| B | first | H | second | N | first |
| C | third | I | second | O | kinder |
| D | kinder | J | third | P | third |
| E | third | K | kinder | Q | kinder |
| F | second | L | first | R | second |

**GRADE LEVELS OF STUDENTS**



K   1   2   3

NUMBER IN EACH GRADE
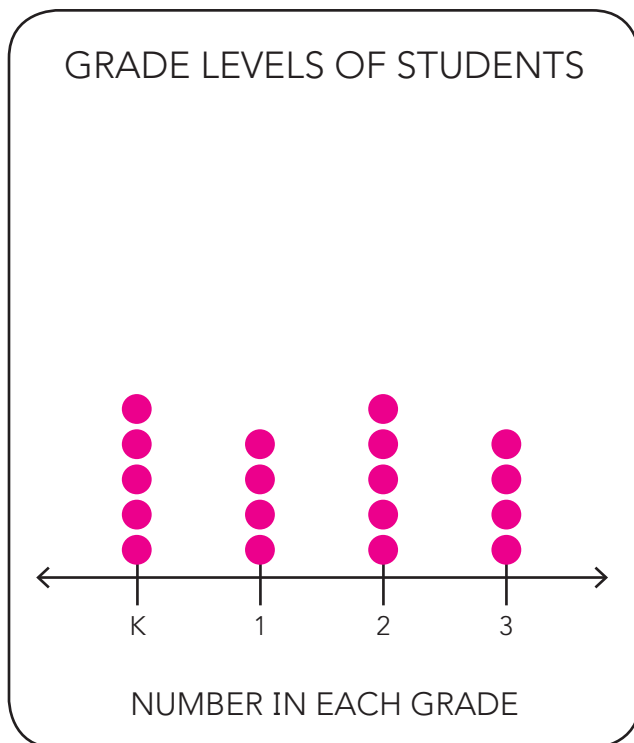
**1.** Complete the dot plot.

**2.** How many dots represent the students in second and third grade?

Answer:_____5_____

**3.** Which grades had the most and least number of students?

Most:__kindergarten, second__

Least:____first, third____

# Stem and Leaf Plot

| DONUTS SOLD PER PURCHASE | 24, 20, 12, 1, 4, 6, 2, 20, 12, 24, 12, 12, 12, 10, 2, 1, 1, 1, 4, 10, 24, 24, 12, 12, 1 |
|---|---|

## DONUTS SOLD PER PURCHASE

| STEM | LEAF |
|---|---|
| 0 | 1, 1, 1, 1, 1, 2, 2, 4, 4, 6 |
| 1 | 0, 0, 2, 2, 2, 2, 2, 2, 2 |
| 2 | 0, 0, 4, 4, 4, 4 |

KEY: **2 | 0 = 20**

1. How many purchases were tracked?
   **25 purchases**

2. How many times were 10 or more donuts purchased?
   **15 times**

3. How many more times were 24 donuts purchased than 6 donuts?
   **3 more times**

# Representing Data Quiz

Examine the data below and create a frequency table.

| FAVORITE FOOD | | | |
|---|---|---|---|
| pasta | pizza | hot dog | burger |
| pasta | pizza | hot dog | pasta |
| burger | pasta | pizza | pasta |
| pasta | burger | burger | burger |
| hot dog | pasta | pasta | pasta |
| pizza | pizza | pizza | hot dog |
| burger | pizza | pizza | pasta |

| FAVORITE FOOD | | |
|---|---|---|
| FOOD | TALLY | FREQUENCY |
| burger | ⊞⊞ I | **6** |
| hot dog | IIII | **4** |
| pasta | ⊞⊞ ⊞⊞ | **10** |
| pizza | ⊞⊞ III | **8** |

**1.** How many people answered the survey?

___**28 people**___

**2.** Which food is least popular?

___**hot dog**___

**3.** Which food is most popular?
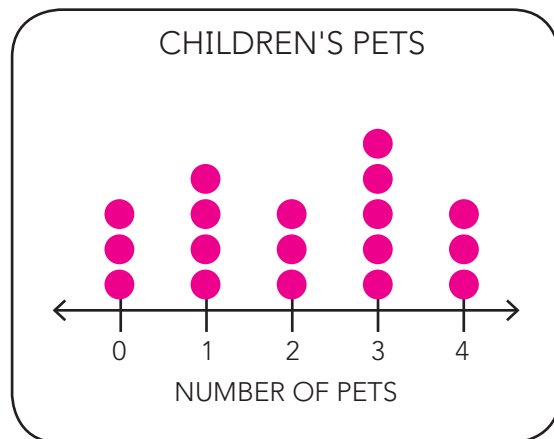
___**pasta**___

**4.** Which two foods have a total of 10 votes altogether?

___**burger**___ ___**hot dog**___

# Representing Data Quiz (cont.)

Examine the data below and create a dot plot.

| CHILDREN'S PETS | | | | | |
|---|---|---|---|---|---|
| CHILD | NUMBER OF PETS | CHILD | NUMBER OF PETS | CHILD | NUMBER OF PETS |
| A | 2 | G | 1 | M | 0 |
| B | 3 | H | 3 | N | 0 |
| C | 4 | I | 3 | O | 1 |
| D | 1 | J | 2 | P | 2 |
| E | 0 | K | 4 | Q | 3 |
| F | 1 | L | 4 | R | 3 |

CHILDREN'S PETS



NUMBER OF PETS

**5.** Which number of pets is least frequent?

**0, 3, 4**

**6.** How many children have 2 or 4 pets?

**6 children**

**7.** Which number of pets is most frequent?

**3**

**8.** How many more children have 3 pets than 0 pets?

**2 more children**

The Tutorial Academy collected data on the ages of the students being tutored. Create a stem and leaf plot to represent the data.

AGES OF STUDENTS

8, 10, 12, 9, 21, 24, 13, 17, 18, 22, 10, 9, 7, 12, 14, 13, 12, 18, 17, 16, 20

AGES OF STUDENTS

| STEM | LEAF |
|---|---|
| 0 | 7, 8, 9, 9 |
| 1 | 0, 0, 2, 2, 2, 3, 3, 4, 6, 7, 7, 8, 8 |
| 2 | 0, 1, 2 |

KEY: **1 | 3 = 13**

**9.** How many ages were recorded?

**21 ages**

**10.** How many students who receive tutoring are 19 or older?

**3 students**

**11.** How many more students between the ages of 10 and 19 receive tutoring services compared to students who are younger than 10?

**9 more students**

**12.** How many students who receive tutoring are between the ages 10 and 24?

**16 students**

# Analyzing Data Quiz

1. The table below represents the number of cans collected by the 4th grade students at Hardbarger Elementary.

| CANS COLLECTED | | | | | | |
|---|---|---|---|---|---|---|
| 15 | 29 | 33 | 42 | 31 | 22 | 20 |
| 9 | 20 | 18 | 31 | 18 | 30 | 10 |
| 14 | 34 | 16 | 28 | 31 | 24 | 17 |

Which choice below represents part of the stem and leaf plot representing the data?

**A.** CANS COLLECTED

| STEM | LEAF |
|---|---|
| 2 | 0, 0, 2, 4, 8, 9 |

KEY: 2|4 = 24

**B.** CANS COLLECTED

| STEM | LEAF |
|---|---|
| 0 | 1, 9 |

KEY: 0|9 = 9

**C.** CANS COLLECTED

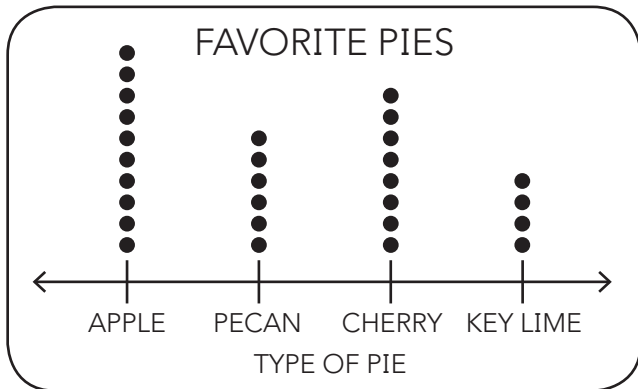| STEM | LEAF |
|---|---|
| 2 | 0, 2, 4, 8, 9, 9 |

KEY: 2|4 = 24

**D.** CANS COLLECTED

| STEM | LEAF |
|---|---|
| 1 | 1, 4, 5, 6, 8 |

KEY: 1|5 = 15

Numbers 2–5, use the dot plot to create the frequency table and answer the questions.

FAVORITE PIES

APPLE   PECAN   CHERRY   KEY LIME
TYPE OF PIE

| FAVORITE PIES | | |
|---|---|---|
| PIE | TALLY | FREQUENCY |
| **Apple** | ⅢⅢ ⅢⅢ | 10 |
| **Pecan** | ⅢⅢ Ⅰ | 6 |
| **Cherry** | ⅢⅢ ⅢⅠ | 8 |
| **Key Lime** | ⅢⅠ | 4 |

2. How many people chose apple pie over key lime pie?

   **6 more people**

3. How many people chose pecan and cherry pie in all?

   **14 people**

4. How many people chose their favorite type of pie?

   **28 people**

5. How many more people chose pecan and apple pie than cherry pie?

   **8 more people**

# Analyzing Data Quiz (cont.)

Numbers 6–9, use the table below.

| FAVORITE SPORT | | | |
|---|---|---|---|
| tennis | baseball | swimming | volleyball |
| volleyball | tennis | baseball | swimming |
| swimming | basketball | volleyball | swimming |
| volleyball | tennis | basketball | volleyball |
| baseball | volleyball | tennis | baseball |
| tennis | baseball | volleyball | basketball |
| volleyball | basketball | swimming | basketball |

**6.** Use the data above to create the frequency table below.

| FAVORITE SPORT | | |
|---|---|---|
| SPORT | TALLY | FREQUENCY |
| tennis | 卌 | **5** |
| baseball | 卌 | **5** |
| basketball | 卌 | **5** |
| swimming | 卌 | **6** |
| volleyball | 卌 || | **7** |

**7.** How many people voted for their favorite sport?

**28 people**

**8.** How many people chose basketball, tennis, and swimming in all?

**16 people**

**9.** How many more people chose tennis and baseball over volleyball?

**3 more people**

Name _____

# Pre-Assessment

Read the problems below and solve.

1. Jaxon purchased a new video game for $66.99. If he had $75.00 to spend, how much money did he have remaining?
   **A.** $8.01
   **B.** $8.10
   **C.** $8.11
   **D.** $8.21

2. Madison earned $600 babysitting. She wants to buy a phone that costs $775.99. How much more money does Madison need to earn to buy the phone?
   **A.** $150.99
   **B.** $155.99
   **C.** $165.99
   **D.** $175.99

3. Thomas had $545.00 in his bank account. He took out $155.75 for a new bike. What is the action called when someone removes funds from an account?
   **A.** deposit
   **B.** withdrawal
   **C.** investment
   **D.** interest

4. Dean has $556.75 in his college savings account. He earned $10.11 in interest. How much does Dean have in his account now?
   **A.** $546.64
   **B.** $555.66
   **C.** $566.86
   **D.** $570.86

5. Harry deposited $450.50 into his bank account. The account had $2,945.75 before the deposit. How much money was in Harry's bank account after the deposit?
   **A.** $2,495.25
   **B.** $3,396.25
   **C.** $3,446.25
   **D.** $3,496.25

# Defining Expenses

| TYPES OF EXPENSES |
|---|

A _____**fixed**_____ expense is one that does _____**not**_____ change.

A _____**variable**_____ expense is one that does _____**change**_____ over time.

| FIXED EXPENSES | VARIABLE EXPENSES |
|---|---|
| **Sample answers: mortgage, car payment** | **Sample answers: groceries, medical emergencies** |

# Features of a Bank

**Answers will vary.**

| LOAN | A loan is money that is _____**borrowed**_____ and must be paid back with _____**interest**_____. |
| --- | --- |

| INTEREST | Interest is an amount of money paid back at a _____**fixed**_____ rate for the use of _____**borrowed**_____ money. |
| --- | --- |

| DEBIT CARD | A debit card _____**slot**_____ lets the user _____**spend**_____ money electronically from a bank account. |
| --- | --- |

| CREDIT CARD | A credit card is a plastic card _____**provided**_____ by a bank or business that lets the user _____**buy**_____ goods or services on _____**site**_____ and pay for them later. |
| --- | --- |

| CREDIT UNION | A credit union is made up by members who can _____**borrow**_____ money from their collected savings at _____**low**_____ interest rates. |
| --- | --- |

# Personal Financial Literacy Quiz

Use the word bank below to identify the missing terms in each statement.

| WORD BANK | fixed expense | debit card | withdrawal |
|---|---|---|---|
| | deposit | variable expenses | profit |

1. Rent is considered a
   _____ **fixed expence** _____.

2. A _____ **withdrawal** _____ is
   when a person takes money out of
   their account.

3. A _____ **debit card** _____ is used
   to purchase goods or services and
   the money is taken out immediately
   from a bank account.

4. A _____ **profit** _____ is the
   money that a person earns after all
   expenses have been paid.

5. Shopping trips and
   vacations are considered
   _____ **variable expenses** _____.

6. A _____ **deposit** _____ is
   when a person puts money into their
   bank accounts.

Solve each problem below.

7. Ellie earned $47.90 babysitting. She
   purchased a new game to play with
   the children for whom she babysat
   for $10.99. How much profit did Ellie
   earn from babysitting?
   A. $34.74
   B. $36.01
   **C. $36.91**
   D. $38.74

8. Liam went to the store and spent
   $32.50 on a jacket, $45.99 on a pair
   of shoes, and $12.00 on new socks.
   How much money did Liam spend at
   the store?
   A. $57.99
   B. $78.49
   C. $88.59
   **D. $90.49**

9. Tyler spent $755.50 on his rent, $230
   on insurance, and $220 on a car
   payment. What types of expenses
   are these?
   **A. Fixed expenses**
   B. Deposit expenses
   C. Variable expenses
   D. Interest expenses

10. Melissa had $455.75 in her college
    savings account. She earned $9.45 in
    interest and then made a withdrawal
    of $20.50. How much does Melissa
    have in her account?
    A. $435.25
    **B. $444.70**
    C. $446.30
    D. $465.20

# Assessment

Use the word bank below to identify the missing terms in each statement.

| WORD BANK | | | | |
|---|---|---|---|---|
| | interest | debit card | withdrawal | loans |
| | deposit | expenses | profit | credit card |

**1.** Rent and groceries are considered
_____**expenses**_____.

**2.** The money paid back at a regular rate after borrowing is called
_____**interest**_____.

**3.** A _____**debit card**_____ is used to purchase goods or services and the money is taken out immediately from a bank account.

**4.** A _____**withdrawal**_____ is when a person takes money out of their account.

**5.** _____**loans**_____ are when money is borrowed and paid back at a later time with interest.

**6.** A_____**credit card**_____ is a plastic card issued by a bank or company that allows a person to purchase goods or services and pay later.

**7.** A _____**deposit**_____ is when a person puts money into their bank accounts.

**8.** _____**profit**_____ is the money that a person earns after all expenses have been paid.

Solve each problem below.

9. Rebecca earned $500 after a month of working at a daycare. Before starting the job, she had to purchase the required uniform for $45.85. How much profit did Rebecca make after working one month?
   A. $444.15
   B. $445.15
   C. $454.15
   D. $455.15

10. Betsy went to the store and purchased two new swimsuits for $55.00 each. Then she purchased a new swim cap for $19.99 and new goggles for $25.50. How much money did Betsy spend at the store?
   A. $74.99
   B. $100.49
   C. $135.50
   D. $155.49

11. Vicky had to pay $899 on rent, $155 on her car payment, and $200 on insurance. She then spent $200 on her groceries for the month and $59.99 on some new clothes. How much more money did Vicky spend on fixed expenses than variable expenses?
   A. $794.01
   B. $994.01
   C. $1014.01
   D. $1074.01

12. Lauren earned $300 dog sitting for her neighbors. She wanted to save half of the money for her college account. If she owes her brother $32 dollars and her friend $60, how much money will Lauren have left over?
   A. $58
   B. $90
   C. $118
   D. $208

13. Spencer had $450.58 in his savings account.He earned $12.09 in interest. Then Spencer withdrew $25.99 for a new cap. How much money does Spencer have in his account after the withdrawal?
   A. $414.84
   B. $424.59
   C. $436.68
   D. $462.67

14. Jamie had $375.90 in his bank account. He withdrew $48.99 from the account and then deposited $124.50 into the account. How much money does Jamie have in his bank account?
   A. $300.39
   B. $326.91
   C. $451.41
   D. $500.40

For numbers 15–17, use the dot plot to create the frequency table and answer the questions.
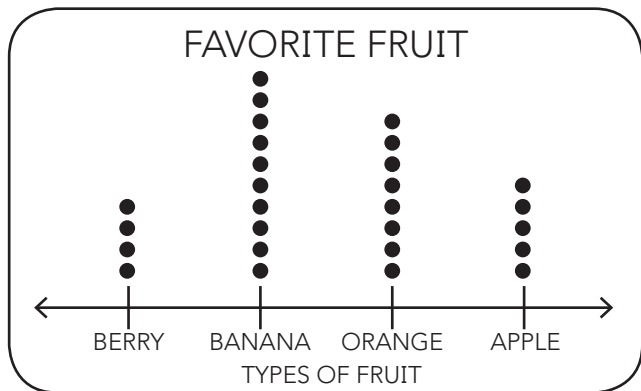
FAVORITE FRUIT



| FAVORITE FRUIT | | |
|---|---|---|
| FRUIT | TALLY | FREQUENCY |
| Berry | \|\|\|\| | 4 |
| Banana | ⅢⅢ ⅢⅢ | 10 |
| Orange | ⅢⅢ \|\|\| | 8 |
| Apple | ⅢⅢ | 5 |

**15.** How many people chose apples and oranges over bananas?

5 people

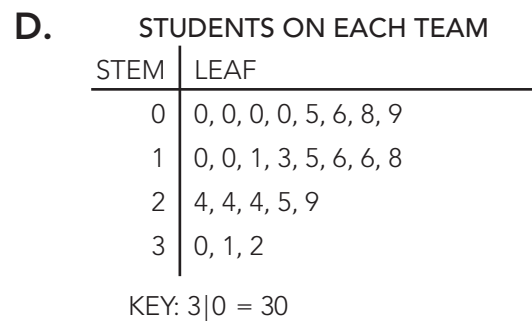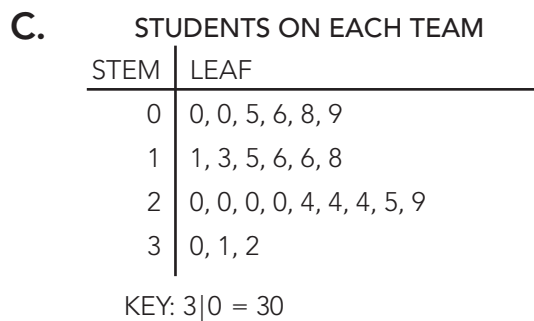**16.** How many more people chose bananas over berries?
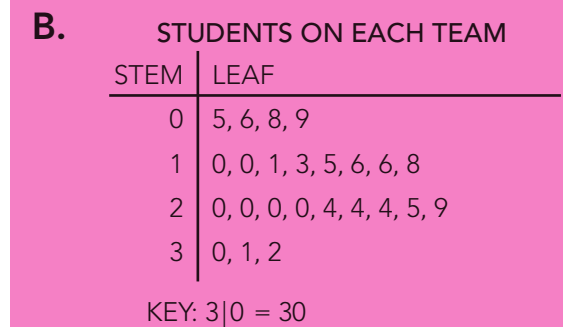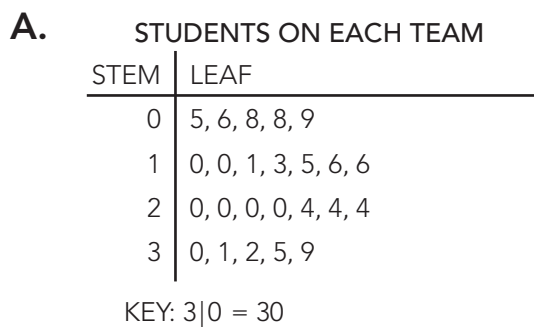
6 more people

**17.** How many people were polled for their favorite type of fruit?

27 people

**18.** Twenty-four schools entered the district track meet. Below is the number of students on each team.

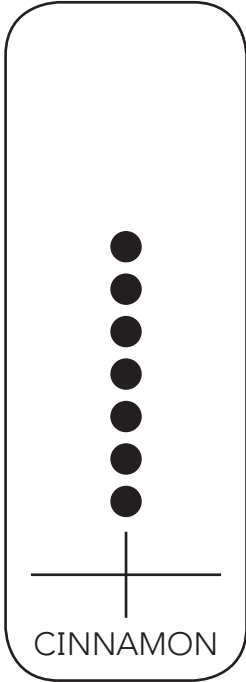| STUDENTS ON EACH TEAM | | | | | |
|---|---|---|---|---|---|
| 11 | 13 | 20 | 32 | 10 | 8 |
| 6 | 9 | 20 | 30 | 25 | 24 |
| 31 | 29 | 20 | 24 | 24 | 15 |
| 18 | 16 | 20 | 10 | 5 | 16 |
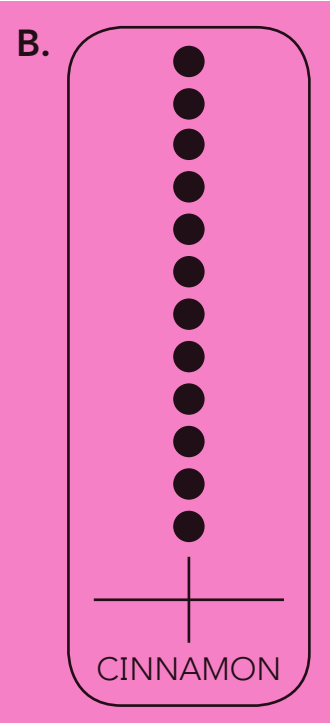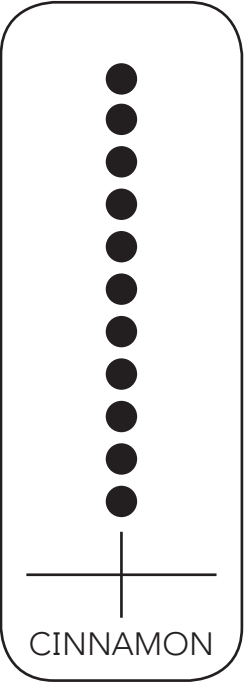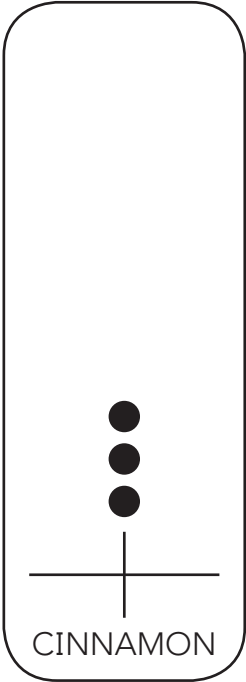
Which stem and leaf plot represents the data above?

**A.**  STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 5, 6, 8, 8, 9 |
| 1 | 0, 0, 1, 3, 5, 6, 6 |
| 2 | 0, 0, 0, 0, 4, 4, 4 |
| 3 | 0, 1, 2, 5, 9 |

KEY: 3|0 = 30

**B.**  STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 5, 6, 8, 9 |
| 1 | 0, 0, 1, 3, 5, 6, 6, 8 |
| 2 | 0, 0, 0, 0, 4, 4, 4, 5, 9 |
| 3 | 0, 1, 2 |

KEY: 3|0 = 30

**C.**  STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 0, 0, 5, 6, 8, 9 |
| 1 | 1, 3, 5, 6, 6, 8 |
| 2 | 0, 0, 0, 0, 4, 4, 4, 5, 9 |
| 3 | 0, 1, 2 |

KEY: 3|0 = 30

**D.**  STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 0, 0, 0, 0, 5, 6, 8, 9 |
| 1 | 0, 0, 1, 3, 5, 6, 6, 8 |
| 2 | 4, 4, 4, 5, 9 |
| 3 | 0, 1, 2 |

KEY: 3|0 = 30

**19.** Shelly's Bakery has a total of 45 cakes on the shelves. The dot plot below shows the number of chocolate, strawberry, vanilla, and coconut cakes in the bakery.

## CAKES IN THE BAKERY



CHOCOLATE   STRAWBERRY   CINNAMON   COCONUT   VANILLA

TYPE OF CAKE
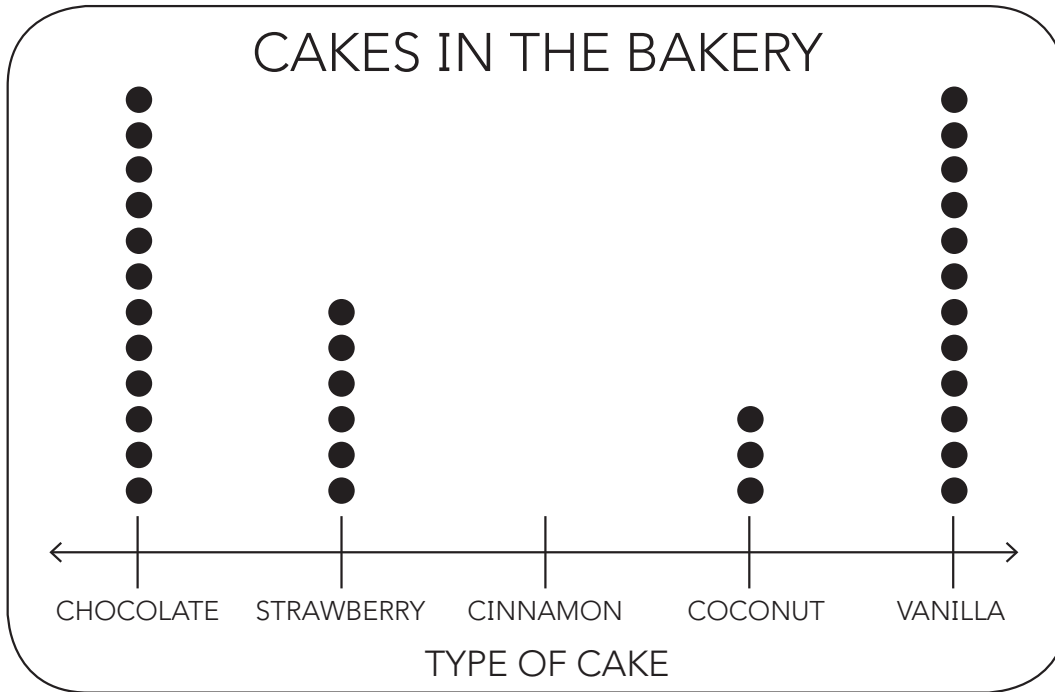
Which of the following shows the number of cinnamon cakes in Shelly's bakery?

**A.**



CINNAMON

**B.**



CINNAMON

**C.**



CINNAMON

**D.**



CINNAMON

# Use the data to complete the table and answer the questions.

| FAVORITE COLOR | | | | |
|---|---|---|---|---|
| blue | red | pink | green | green |
| blue | yellow | red | yellow | yellow |
| green | blue | green | red | yellow |
| red | green | green | blue | blue |
| yellow | pink | green | green | pink |
| red | yellow | blue | green | yellow |

| FAVORITE COLOR | | |
|---|---|---|
| Color | Tally | Frequency |
| blue | 卌 l | 6 |
| red | 卌 | 5 |
| yellow | 卌 ll | 7 |
| green | 卌 llll | 9 |
| pink | lll | 3 |

**How many people answered the survey?**

_____ 30 people _____

**Which color is the most popular?**

_____ green _____

**Which color is least popular?**

_____ pink _____

**Which two colors got a combined vote of 9?**

_____ blue and pink _____

# Use the data to complete the table and answer the questions.

| FAVORITE SUBJECT | | | | |
|---|---|---|---|---|
| math | reading | science | writing | math |
| math | math | writing | science | math |
| writing | math | science | math | reading |
| math | reading | reading | science | science |

| FAVORITE SUBJECT | | |
|---|---|---|
| Subject | Tally | Frequency |
| math | ⊞∥∥ | 8 |
| writing | ∥∥ | 3 |
| reading | ∥∥∥ | 4 |
| science | ⊞ | 5 |

Which subject is the least popular?

**writing**

What subject is the most popular?

**math**

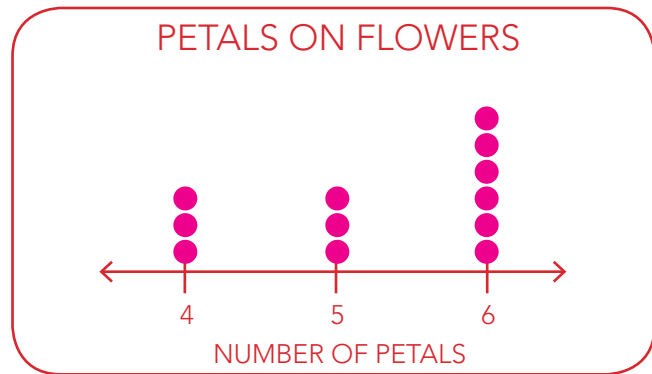How many people are represented in this survey?

**20 people**

How many more people like math than science?

**3 more people**

# Use the data to complete the dot plot and answer the questions.

| PETALS ON FLOWERS | | | | | |
|---|---|---|---|---|---|
| Flower | Number of Petals | Flower | Number of Petals | Flower | Number of Petals |
| A | 6 | E | 6 | I | 6 |
| B | 5 | F | 4 | J | 5 |
| C | 6 | G | 5 | K | 6 |
| D | 4 | H | 4 | L | 6 |

PETALS ON FLOWERS



NUMBER OF PETALS

How many flowers were examined?
**12 flowers**

What number of petals occurs most often?
**6 petals**

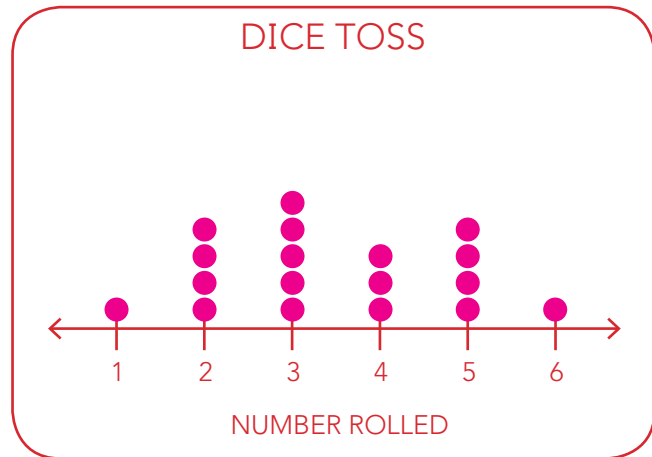Which number of petals occurs least often?
**4 and 5 petals**

Which two numbers of petals have the highest counts?
**6 and 4**

# Use the data to complete the dot plot and answer the questions.

| DICE TOSS | | | | | |
|---|---|---|---|---|---|
| Toss | Number Rolled | Toss | Number Rolled | Toss | Number Rolled |
| A | 3 | G | 4 | M | 3 |
| B | 3 | H | 3 | N | 4 |
| C | 5 | I | 2 | O | 2 |
| D | 5 | J | 6 | P | 2 |
| E | 3 | K | 5 | Q | 5 |
| F | 1 | L | 2 | R | 4 |

**DICE TOSS**



NUMBER ROLLED

What number was rolled the least?
**1 and 6**

What number was rolled the most?
**3**

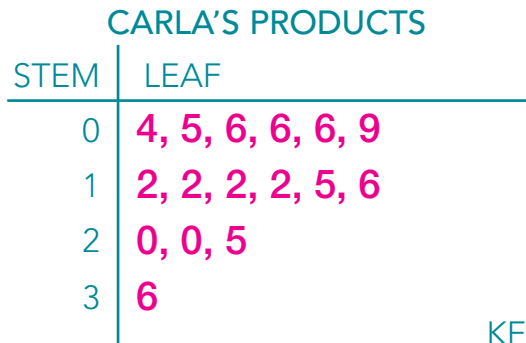Which two numbers were rolled a total of 8 times?
**2 and 5, or 3 and 4**

How many times did 4 and 6 get rolled in all?
**4 times**

# Carla rolled two dice and multiplied the numbers to find their product. Create a stem and leaf plot to represent her data.

| CARLA'S PRODUCTS |
|---|
| 12, 6, 15, 20, 12, 36, 6, 16, 9, 20, 12, 6, 25, 4, 5, 12 |

CARLA'S PRODUCTS

| STEM | LEAF |
|---|---|
| 0 | 4, 5, 6, 6, 6, 9 |
| 1 | 2, 2, 2, 2, 5, 6 |
| 2 | 0, 0, 5 |
| 3 | 6 |

KEY: 3|6 = 36

How many products did Carla make?

**16 products**

How many products were exactly 12?

**4 products**

How many more products of 20 were there than 4?

**1 more product**

How many products of 6 and 20 did Carla make in all?

**5 products**

# Dranton Elementary School recorded how many students were in each class. Create a stem and leaf plot to represent the data.

| STUDENTS IN EACH CLASS | 12, 9, 21, 19, 18, 17, 22, 20, 23, 25, 8, 20, 19, 20, 18, 22, 25, 20, 22, 19 |
|---|---|

**STUDENTS IN EACH CLASS**

| STEM | LEAF |
|---|---|
| 0 | 8, 9 |
| 1 | 2, 7, 8, 8, 9, 9, 9 |
| 2 | 0, 0, 0, 0, 1, 2, 2, 2, 3, 5, 5 |

KEY: 2|0 = 20

How many class totals were included?
**20 classes**

How many classes have at least 20 students?
**11 classes**
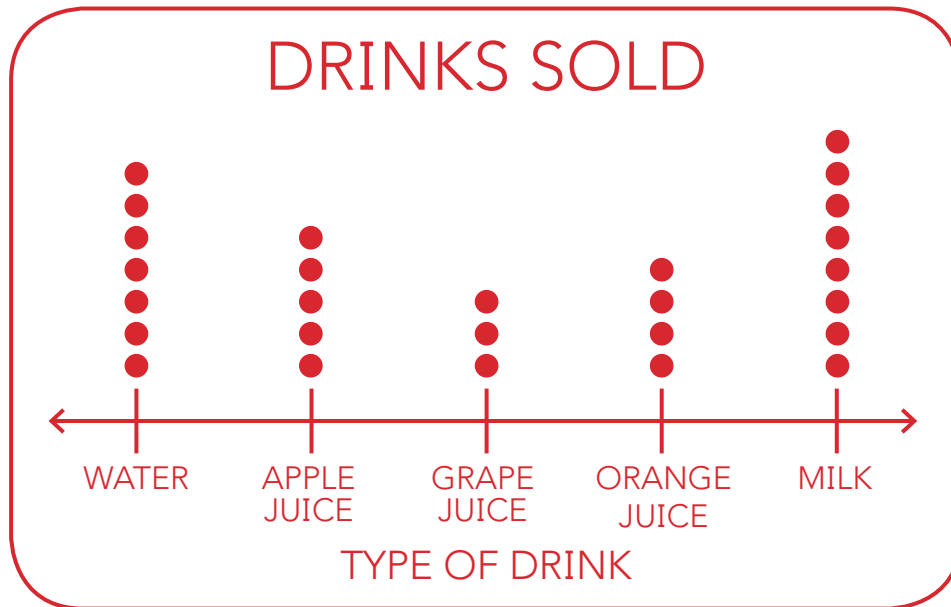
What is the total number of classes that have 17 or 18 students?
**3 classes**

How many more classes have 20 students than 19 students?
**7 classes**

Mark created a dot plot to represent how many drinks were sold at his concession stand.

DRINKS SOLD



Which frequency table below represents the data correctly?

**A.**

| DRINKS SOLD | | |
|---|---|---|
| Drink | Tally | Frequency |
| Water | ||||| || | 7 |
| Apple Juice | |||| | 4 |
| Grape Juice | ||| | 3 |
| Orange Juice | |||| | 4 |
| Milk | ||||| || | 7 |

**B.**

| DRINKS SOLD | | |
|---|---|---|
| Drink | Tally | Frequency |
| Water | ||||| || | 7 |
| Apple Juice | ||||| | 5 |
| Grape Juice | ||| | 3 |
| Orange Juice | |||| | 4 |
| Milk | ||||| ||| | 8 |

**C.**

| DRINKS SOLD | | |
|---|---|---|
| Drink | Tally | Frequency |
| Water | ||||| || | 7 |
| Apple Juice | ||||| | 5 |
| Grape Juice | ||| | 3 |
| Orange Juice | |||| | 4 |
| Milk | ||||| ||| | 8 |

**D.**

| DRINKS SOLD | | |
|---|---|---|
| Drink | Tally | Frequency |
| Water | ||||| ||| | 8 |
| Apple Juice | ||||| | 5 |
| Grape Juice | |||| | 4 |
| Orange Juice | ||| | 3 |
| Milk | ||||| || | 7 |

Twenty schools entered the Academic Tournament.
Below is a number of students on each team.

| STUDENTS ON EACH TEAM | | | | |
|---|---|---|---|---|
| 15 | 9 | 23 | 40 | 35 |
| 19 | 21 | 8 | 11 | 13 |
| 20 | 22 | 26 | 9 | 30 |
| 29 | 28 | 44 | 18 | 20 |

Which stem and leaf represents the data correctly?

**A.**

STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 8, 9, 9 |
| 1 | 1, 3, 5, 8, 9 |
| 2 | 0, 0, 1, 2, 3, 6 |
| 3 | 0, 5, 8, 9 |
| 4 | 0, 0, 4 |

KEY: 4|4 = 44

**B.**

STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 8, 9, 9 |
| 1 | 1, 3, 5, 8, 9 |
| 2 | 0, 0, 1, 2, 3, 6, 8, 9 |
| 3 | 0, 5 |
| 4 | 0, 4 |

KEY: 4|4 = 44

**C.**

STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 8, 9 |
| 1 | 0, 0, 1, 3, 5, 8, 9 |
| 2 | 0, 0, 1, 2, 3, 6, 8, 9 |
| 3 | 0, 5, 9 |
| 4 | 0, 4 |

KEY: 4|4 = 44

**D.**

STUDENTS ON EACH TEAM

| STEM | LEAF |
|---|---|
| 0 | 8, 8, 9 |
| 1 | 1, 3, 5, 8, 9 |
| 2 | 0, 0, 1, 2, 3, 6, 8, 8 |
| 3 | 0, 0, 5 |
| 4 | 0, 4 |

KEY: 4|4 = 44

The stem and leaf plot shows the ages of people in a movie theater.

## AGES OF PEOPLE IN THE THEATER

| STEM | LEAF |
|---|---|
| 0 | 7, 8, 9, 9 |
| 1 | 1, 3, 5 |
| 2 | 0, 0, 1, 2, 3, 6 |
| 3 | 0, 0, 2, 3 |
| 4 | 1, 1, 4, 4 |
| 5 | 1, 2, 3 |

## Which frequency table below represents the data correctly?

**A.**

| AGES OF PEOPLE IN THE THEATER | | |
|---|---|---|
| Age Group | Tally | Frequency |
| 0–9 | ||| | 3 |
| 10–19 | |||| | 4 |
| 20–29 | ||||  | | 6 |
| 30–39 | |||| | 4 |
| 40–49 | |||| | 4 |
| 50–69 | ||| | 3 |

**B.**

| AGES OF PEOPLE IN THE THEATER | | |
|---|---|---|
| Age Group | Tally | Frequency |
| 0–9 | |||| | 4 |
| 10–19 | ||| | 3 |
| 20–29 | ||||  | | 6 |
| 30–39 | |||| | 4 |
| 40–49 | ||| | 3 |
| 50–69 | |||| | 4 |

**C.**

| AGES OF PEOPLE IN THE THEATER | | |
|---|---|---|
| Age Group | Tally | Frequency |
| 0–9 | |||| | 4 |
| 10–19 | |||| | 4 |
| 20–29 | ||||  | | 6 |
| 30–39 | ||| | 3 |
| 40–49 | |||| | 4 |
| 50–69 | ||| | 3 |
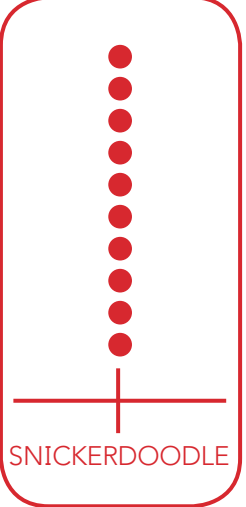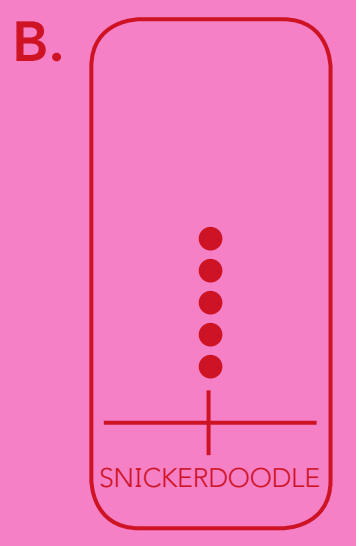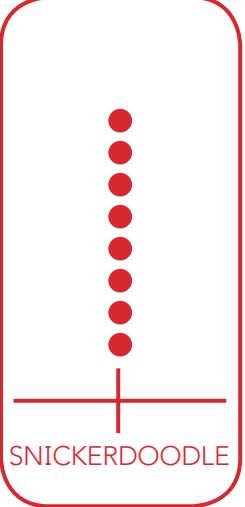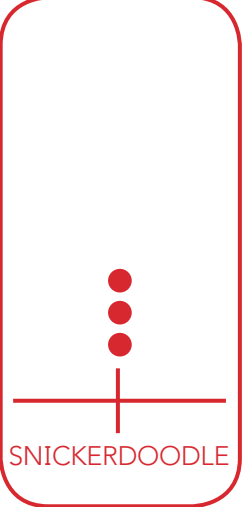
**D.**

| AGES OF PEOPLE IN THE THEATER | | |
|---|---|---|
| Age Group | Tally | Frequency |
| 0–9 | |||| | 4 |
| 10–19 | ||| | 3 |
| 20–29 | ||||  | | 6 |
| 30–39 | |||| | 4 |
| 40–49 | |||| | 4 |
| 50–69 | ||| | 3 |

Martin's Bakery has a total of 40 cookies. The dot plot below shows the number of chocolate chip, oatmeal, candy, and double chocolate.

COOKIES IN THE BAKERY



TYPE OF COOKIE
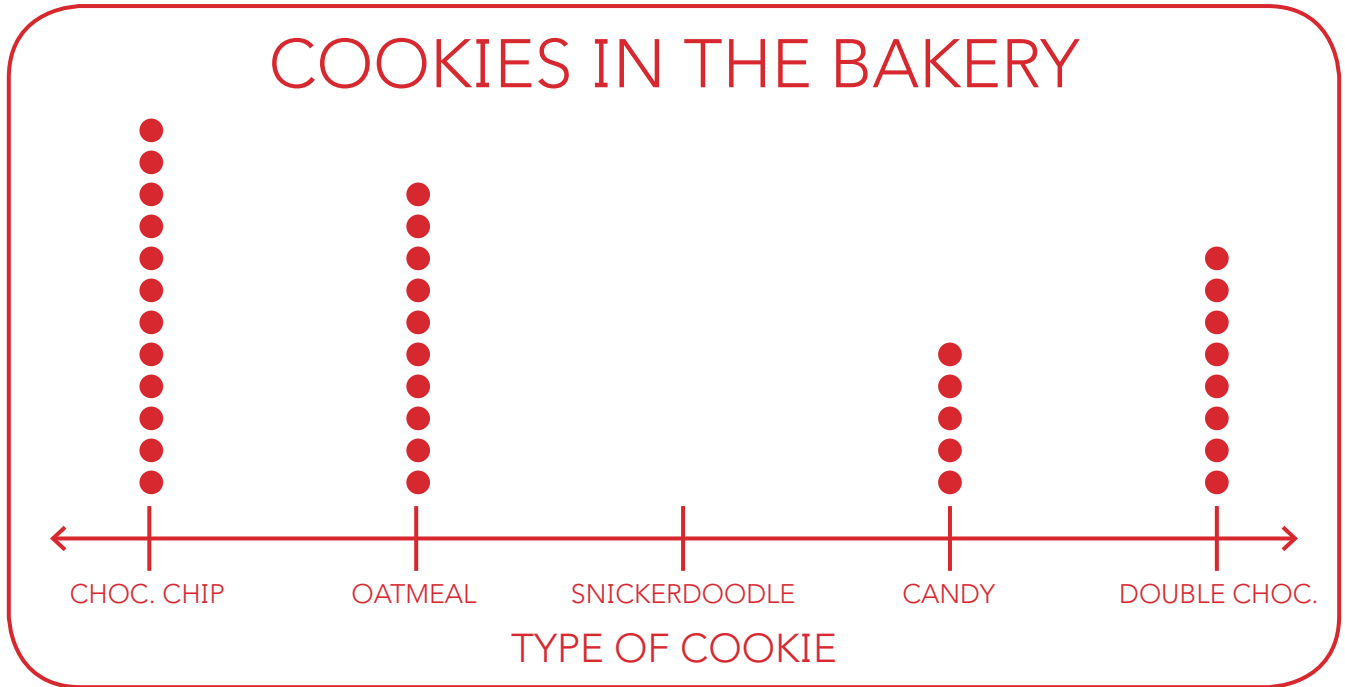
Which of the following shows the number of snickerdoodle cookies that are in Martin's bakery?

A.



SNICKERDOODLE

B.



SNICKERDOODLE

C.



SNICKERDOODLE

D.



SNICKERDOODLE

# Create your own frequency table to represent the data in table.

| FAVORITE DESSERT | | |
|---|---|---|
| Dessert | Tally | Frequency |
| cookie | 卌 卌 | 10 |
| cake | 卌 ||| | 8 |
| brownie | 卌 | | 6 |
| ice cream | 卌 | | 6 |

# How many people chose cookies or ice cream as their favorite dessert?

**16 people**

# How many more people chose cake over brownies?

**2 people**

# How many people chose their favorite dessert?

**30 people**

# Create your own frequency table to represent the data in dot plot.

| PETS IN THE STORE | | |
|---|---|---|
| Pet | Tally | Frequency |
| dogs | ||||| ||||| | 10 |
| cats | ||||| | 5 |
| hamsters | ||||| || | 7 |
| lizards | ||||| || | 7 |
| snakes | ||| | 3 |

# What is the total number of snakes, hamsters, and lizards in the store?

**17**

# How many more lizards are in the store than cats?

**2 lizards**

# How many pets are in the pet store?

**32 pets**

# Create your own frequency table to represent the data from the stem and leaf plot.

| WEIGHT OF DOGS | | |
|---|---|---|
| Pet | Tally | Frequency |
| 0–9 pounds | ||| | 3 |
| 10–19 pounds | || | 2 |
| 20–29 pounds | ||||| || | 7 |
| 30–39 pounds | |||| | 4 |
| 40–49 pounds | ||||| | 5 |
| 50–59 pounds | ||| | 3 |

Dog Cards

# How many more dogs weigh between 20–29 pounds than 0–9 pounds?

**4 dogs**

# How many dogs weigh more than 9 pounds?

**21 dogs**

# How many dogs' weights were collected?

**24 dogs**

Jake earned $52.50 for raking leaves. He spent $32.00 on a jacket and $8.99 on a movie ticket. How much money does Jake have remaining?

Answer: _____**$11.51**_____

Kylie purchased a new hat for $13.50, a new pair of sunglasses for$12.99, and a new purse for $45.00. What is the total amount of money that Kylie spent?

Answer: _____ **$71.49** _____

Martin purchased a new computer for $499.99. He also purchased a case for $102.50. How much did he spend in all?

Answer: _____ $602.49 _____

Gina purchased three different pairs of shoes. Each pair of shoes cost $49.50. If she had $200 to spend, how much money did she have left over?

Answer: _____ $51.50 _____

Brent spent $102.36 on groceries for one week, $89.75 the next week, and $120.99 the third week. How much money did Brent spend on groceries for all three weeks?

Answer: _____**$313.10**_____

Natalie saved her babysitting money for one month. She had $43.00 at the end of the month. Natalie decided to spend $29.99 on a new bike helmet. How much money does Natalie have left?

Answer: _____ **$13.01** _____

Max went to the store to purchase a jacket for $45.85, a new shirt for $25.70, a tie for $12.50, and a new pair of shoes for $87.20. How much money did Max spend at the store?

Answer: _____**$171.25**_____

Kendall purchased a dress for $55.55. She purchased matching shoes for $65.90 and earrings for $34.65. If Kendall had $175.75 to spend, how much money did she have left?

Answer: _____ **$19.65** _____

Jenna babysat for 4 nights, earning $50 each night. If she wants to buy a scooter for $435, how much more money does she need to save?

Answer: _____ $235 _____

Last month, Sally made $65 working at the local craft store. She had to repay her brother for buying a phone case for $15. She wants to buy a new video game for $50. Does she have enough money to buy the game? If so, how much money will she have remaining after buying the game? If not, how much more money does she need to save?

Answer: Sample answer: She has enough money to buy the game. She will have $0 leftover.

Ali wants to buy a new dollhouse that will cost $375. If she saves $45 a week for 16 weeks, how much money will she have left over once she purchases the dollhouse?

Answer: _____ $345 _____

Gary saved $20 each month for 15 months. How much money did Gary save? If he spends $120.75 on parts for a go-kart, how much money will Gary have left?

Answer: _____ **$179.25** _____

Laura wants to buy a new puppy at the pet store. The dog costs $325.90. She has $400 in her bank account, but needs to save $50 for gas. How much money does Laura have left to spend on her puppy?

Answer: **Sample answer: If Laura buys the dog, she will have $24.10.**

Trevor saved $222. He owed his parents $45 and wants to purchase a new football for $25.75. How much money will Trevor have left over after he pays his parents back and buys his football?

Answer: _____**$151.25**_____

# Use the word bank below to sort the expenses into the correct side of the T-chart.

| WORD BANK | | | | | |
|---|---|---|---|---|---|
| | Rent | Shopping at mall | Car payment | Movie tickets | Magazine subscription |
| | Grocery shopping | Planning a vacation | ER visit | Car repair | Concert tickets |
| | Gym membership | Internet bill | Buying a bike | Dinner at a restaurant | Buying a new TV |

| FIXED EXPENSES | VARIABLE EXPENSES |
|---|---|
| **Rent**<br>**Car payment**<br>**Magazine subscription**<br>**Gym membership**<br>**Internet bill** | **Shopping at mall**<br>**Movie tickets**<br>**Grocery shopping**<br>**Planning a vacation**<br>**ER visit**<br>**Car repair**<br>**Concert tickets**<br>**Buying a bike**<br>**Dinner at a restaurant**<br>**Buying a new TV** |

Shelby earned $2,500 a month. If her rent is $850 and her car payment is $220, how much money does Shelby spend on fixed expenses?

Answer: _____ **$1,070** _____

Kayden earns $4,000 every month. He wants to spend $1,200 on a vacation, but needs to pay his $2,200 mortgage and $500 car insurance. How much money will Kayden spend on his fixed and variable expenses if he pays his blls and takes the vacation?

Answer: _____$100_____

Mandy determined that her fixed expenses each month are $990 for rent, $200 for insurance, and $300 for other bills. If Mandy makes $4,900 a month, how much is left over to spend on variable expenses?

Answer: _____ $3,410 _____

Greg earns $3,000 every month. He spends $1,500 on fixed expenses. Last month, he used his remaining money to pay for his $399 car repairs and $450 on a new TV. How much more money did Greg spend on fixed expenses than variable expenses?

Answer: _____ **$651** _____

Blaire earned $4,500 last month. She paid $1,000 for rent, $250 for insurance, and $1,585 for a vacation. How much money did Blaire spend on her fixed and variable expenses?

Answer: _____ $2,835 _____

Nathan earned $3,800 last month. He spent $2,289 on fixed expenses, such as rent, a car payment, and insurance. How much money did Nathan have remaining to spend on variable expenses?

Answer: _____ $1,511 _____

Matt had $278 in his bank account. He made a purchase with his debit card for $143.95. How much money does Matt have remaining in his account?

Answer: _____$134.05_____

Kylie had $198.75 in her savings account. She earned $4.75 in interest and made a deposit of $90.35 into her account. How much money does Kylie have in her account now?

Answer: _____$293.85_____

Alex currently has $56.85 in her bank account. She deposits a check for $43.25. How much money does Alex have in her account after the deposit?

Answer: _____ $100.10 _____

Sophie earned $8.88 in interest for her savings account. The account had $65.99 before the interest was added. How much money does Sophie have in the account now?

Answer: _____ $74.87 _____

Travis deposited $98.50 into his bank account. If the bank account total is now $472.10, how much money was in the account before the deposit?

Answer: _____$373.60_____

Meredith had $182.75 in her bank account. She made two withdrawals of $45.60 and $15.00. How much money does Meredith have in her account after the two withdrawals?

Answer: _____**$122.15**_____

Lilly made $399 by selling bracelets. Her supplies cost $56.75. How much profit did Lilly make?

Answer: _____$342.25_____

Dominic made a wood table and sold it for $555.55. The wood, stain, and tools cost him $121.98. What profit did Dominic make from the wood table?

Answer: _____ $433.57 _____

Kristen made $400 waiting tables for a month. Before she started, she had to buy her serving uniform for $45. How much money did Kristen make after paying her uniform cost?

Answer: _____ $355 _____

Derek raked leaves for 5 neighbors. He earned $45 from each neighbor. If he spent $14.75 on bags, how much profit did Derek make from raking the leaves?

Answer: _____ $30.25 _____

Suzanne made 10 decorative wreaths and sold them each for $25. She had to pay her mom back $50 for loaning her the money to purchase the supplies. How much money does Suzanne get to keep as profit?

Answer: _____$200_____

Nick received $325 for trimming trees in his neighbor's yard. Nick had to purchase a new chain for his chainsaw as well as fuel for a total of $47.99. How much profit did Nick earn from his tree-trimming job?

Answer: _____ $277.01 _____

Roger had a tutoring business with 20 students. Each student paid $30. If Roger spent $24.65 on tutoring supplies, how much profit did he make?

Answer: _____ $575.35 _____

Julie made key chains and sold them at her school's annual craft show. She made $400 by selling all her key chains. If the supplies cost $35.70, what was Julie's profit?

Answer: _____$364.30_____

Blaine earned $575 from his lawn business. His expenses for maintaining his equipment and extra supplies was $85.60. How much profit did Blaine earn?

$489.40

Classify each of the expenses below.
- grocery shopping
- clothes shopping
- movie tickets
- concert tickets

| FIXED EXPENSE | VARIABLE EXPENSE |
|---|---|
| | grocery shopping |
| | clothes shopping |
| | movie tickets |
| | concert tickets |

James earned $600 giving hiking tours at the nearby parks. He had to buy new hiking boots for $127.99. What profit did James make from giving the tours?

$472.01

Marty had $80.35 in his bank account. He deposited $32.99 into his account. How much money does Marty have in his account after the deposit?

$113.34

Sarah earns $5,000 a month. She spends $1,300 on rent, $400 on a car payment, and $250 on insurance. How much money does Sarah have remaining for variable expenses?

$3,050

Kevin went to the sporting goods store and purchased a new kayak for $350.75, a new body suit for $99.99, and two paddles for $32 each. How much money did Kevin spend at the sporting goods store?

$514.74

Classify each of the expenses below.
- rent
- car insurance
- medical insurance

| FIXED EXPENSE | VARIABLE EXPENSE |
|---|---|
| rent<br>car insurance<br>medical insurance | |

Rebecca wants to purchase a new bike for $125.99. She earned $640.55 babysitting over 3 months. She owes her sister $90 for a dress she bought. How much money will Rebecca have left after paying back her sister and buying the new bike?

$424.56

Brenton earned $4,500 last month. He spent $1,200 on rent, $150 on his car payment, and $200 on insurance. He then spent $400 shopping for new clothes, $350 on groceries for the month, and $90 on gas. How much more money did Brenton spend on his fixed expenses than his variable expenses?

$710

Mike had $299 in his bank account. He earned $5.75 in interest, but then withdrew $49.50. How much money did Mike have left in his account after the withdrawal?

$255.25

Jared earned $400 mowing lawns. He deposited $300 in his college fund. He used the remaining money to pay his dad back $23 and fill his car up with gas for $38.81. How much money does Jared have left over?

$38.19

Jessie carved and sold wood figurines at his community showcase. He earned $50 for all the figurines he sold. If his expenses for wood and tools were $18.50, how much profit did Jessie earn?

$31.50