Name _____ Date _____

Homework Practice

5SDAP1.2

Bar Graphs and Line Graphs

1. Make a bar graph of the data in the table. Compare the number of students who chose pizza over tacos.

Favorite Foods	
Food	Frequency
Tacos	15
Pizza	25
Hamburger	10
Salad	20

Use the line graph at the right to answer the questions.

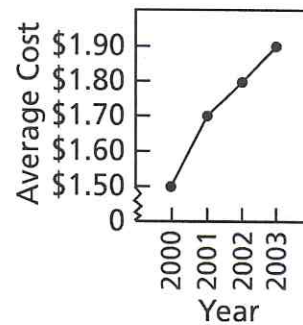2. In which year did a can of Grandma's Soup cost the least?

_____

_____

3. Between which two years did the cost of a can of soup increase the most?

_____

_____

_____

**Average Cost of a
Can of Grandma's Soup**

Spiral Review

Rewrite using the Distributive Property. Then evaluate.

4. $5 \times (3 + 2)$ _____

5. $3^2 + (9 - 3)$ _____

6. $(11 \times 2) + (2 \times 8)$ _____

7. $3 \times (24 \div 8) + 2$ _____

Name _____ Date _____

Problem-Solving Practice

5SDAP1.2

Bar Graphs and Line Graphs

Solve.

1. Moesha volunteers at the zoo. She prepared a bar graph that shows the number of pounds of food eaten each day, by each animal. What information goes on the horizontal axis?

   _____

2. Dawn gathered information about the population of each county in her state. If she prepares a bar graph of this data, what information will be displayed on the vertical axis?

   _____

3. Tim lives in New York. He prepares a line graph that shows the amount of heating fuel used in his home for a year. Will the line rise, remain level, or fall between August and November?

   _____

4. In her social studies report, Suzanne included a bar graph that showed the populations of different Native American nations in 1800. The interval she used was 2,000 people. If one nation had a population represented by 2.5 intervals, how many members of this nation existed in 1800?

   _____

5. Jon makes a bar graph that shows the number of dogs owned by members of his class. If the smallest number is 1 and the largest number is 4, what interval should Jon use?

   _____

6. Anthony emptied his bank and made a bar graph of the numbers of each type of coin. The interval he chose was 5 coins. If the graph showed 5 intervals of quarters, 2 intervals of dimes, 3 intervals of nickels, and 10 intervals of pennies, what was the total amount of money in his bank?

   _____

Name _____ Date _____

Homework Practice

Interpret Line Graphs

The line graph below represents how much Daniel grew between 1998 and 2002. Use the line graph to answer the questions.
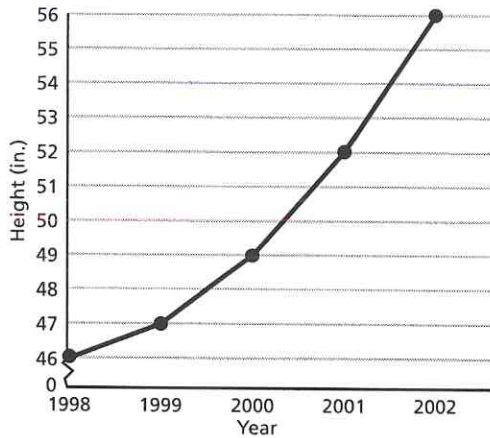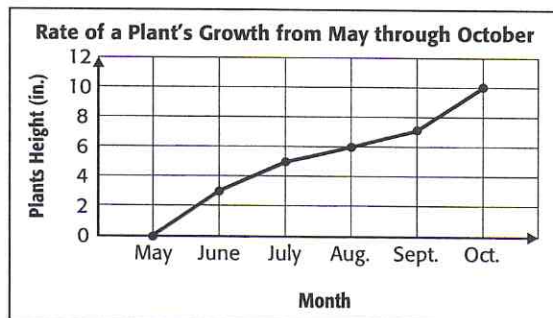

1. What does the horizontal axis represent?

_____

2. What does the vertical axis represent?

_____

3. Between which two years did Daniel grow the least?

_____

_____

4. How many inches did Daniel grow between 2000 and 2001?

_____

_____

Spiral Review

Use the bar graph below to answer the questions. (Lesson 2–1)
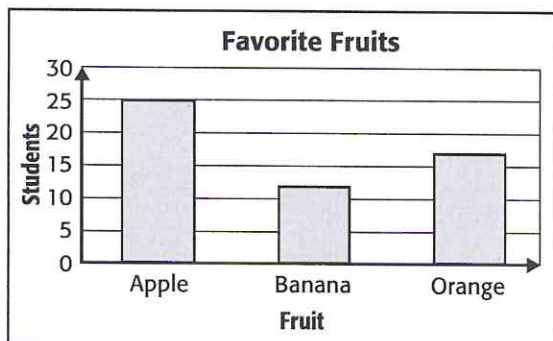
5. What does the vertical axis represent?

_____

6. Which fruit is the students' least favorite?

_____

7. How many more students preferred apples over oranges?

_____

_____

Name _____ Date _____

Problem-Solving Practice

Interpret Line Graphs

Rate of a Plant's Growth from May through October

Plants Height (in.)

12
10
8
6
4
2
0

May   June   July   Aug.   Sept.   Oct.

Month

1. Look at the graph. Between what month(s) did the plant experience the most growth?

   _____

2. Between what month(s) was there the least amount of growth?

   _____

3. If the line graph continued, based on the pattern of growth you see, how many inches do you think the plant would grow from October to November?

   _____

4. Do you think this graph represents the pattern of growth for all plants? What are some pieces of information that graph does not tell you?

   _____

Name _____ Date _____

Homework Practice

Histograms

The histogram below represents the times and numbers of runners on the track at UCLA. Use the histogram to answer the questions.

1. About how many runners are on the track at UCLA between 7 P.M. and 10 P.M.?

_____

2. About how many more runners are on the track from 7 A.M. to 10 A.M. than from 10 A.M. to 1 P.M.?

_____

3. If you wanted to use the track at the time when it is least crowded, between what hours would you go?

_____

Runners on UCLA Track
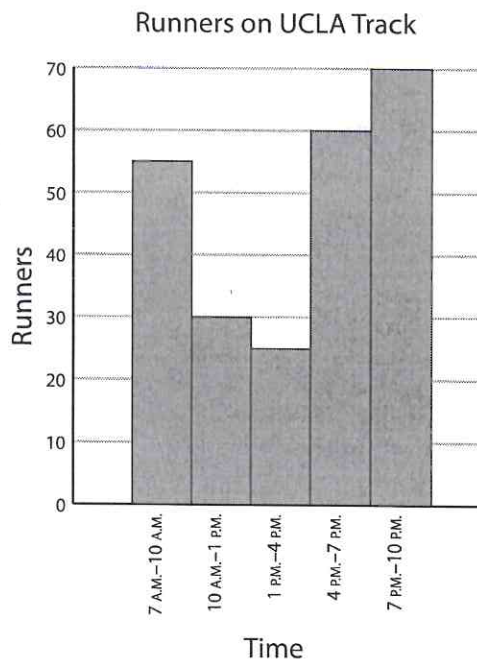
Spiral Review

Use the line graph to answer the questions. (Lesson 2–2)

4. Describe the pattern or trend the graph illustrates.

_____

Snowfall During Storm

5. Between what two hours was there the greatest increase in snow fall, or did the snow fall the same amount during each of the hours shown on the graph?

_____

Name _____ Date _____
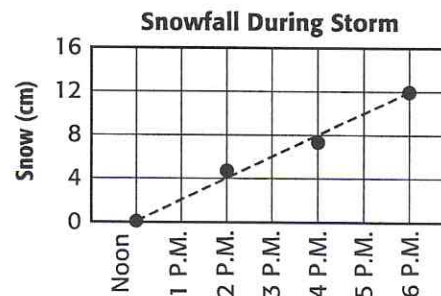
Problem-Solving Practice

5SDAP1.2

Histograms

Visitors to Metro Zoo
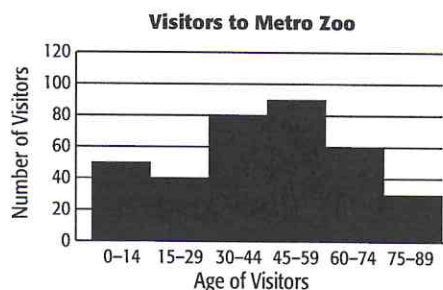
Use the data from the table for exercises 1 and 2.

1. How many visitors to the zoo were between 15 and 29 years old?

   _____

2. For what age group were there 60 visitors?

   _____

3. How many more 30- to 44-years-old visitors were there than visitors 75 to 89 years old?

   _____

4. How many visitors in all went to Metro Zoo on this day?

   _____

Make a histogram on a separate sheet of paper.

5. The following numbers are the high temperatures for the month of April in Baltimore, Maryland. Make a histogram for the data.

45°	52°	49°	43°	55°	42°	58°	49°	50°	54°	47°	56°
46°	62°	60°	54°	59°	45°	61°	58°	63°	53°	51°	59°
48°	52°	55°	53°	50°	57°						

   _____

6. How many days in April was the temperature in Baltimore 49° or less? How many days was the temperature more than 53°?

   _____

Name _____ Date _____

Homework Practice

Line Plots

The line plot below represents the total number of runs scored by the 7 players on Tatiana's softball team this year. Use the information on the line plot to answer the questions.
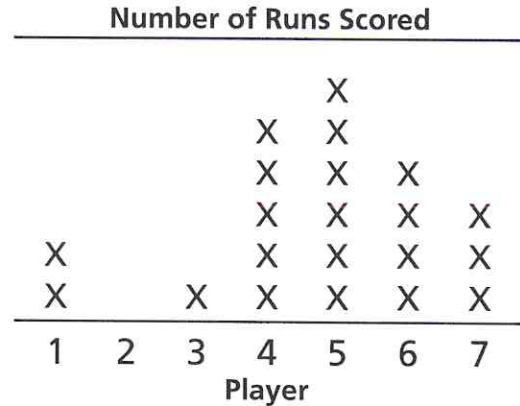
1. Which player scored 4 runs this year?

_____

2. Which players scored more than three runs this year?

_____

3. How many more runs did Player 6 score than Player 1?

_____

Number of Runs Scored

```
                        X
                    X   X
                    X   X   X
                    X   X   X   X
        X           X   X   X   X
        X       X   X   X   X   X
        1   2   3   4   5   6   7
                    Player
```

Spiral Review

Use the table below for exercise 4. (Lesson 2–3)

4. The data shows staggered start times of a marathon. Make a histogram of the data.

Start Time	Number of Runners
Between 8:00 and 8:02	45
Between 8:02 and 8:04	58
Between 8:04 and 8:06	78
Between 8:06 and 8:08	56
Between 8:08 and 8:10	33
Between 8:10 and 8:12	13

Name _____ Date _____

Problem-Solving Practice

Line Plots

Solve.

1. Kyle surveyed his friends and found that 7 of them listen regularly to rock music, 5 listen to rap music, and 2 listen to country music. Which type of music would have the highest number in a frequency table?

_____

2. Sean found that 6 of his classmates wore a size 5 shoe, 12 wore a size 6, 10 wore a size 7, and 2 wore an 8. On a line plot, which number would have the greatest number of Xs above it?

_____

3. Deanna measured the length of a piece of wood three times. The measurements were 25.67 cm, 25.79 cm, and 25.71 cm. List the measurements in the order they would appear on a line plot.

_____

4. Scott found that 12 of his classmates wore a size 5 ring, 9 wore a size 6, and 3 wore a size 7. On a line plot of this data, is the number of students or the ring size located by a number on the number line?

_____

5. Laura kept a table of the daily temperatures during January in Minnesota. What changes might she have to make in a number line that starts at zero and goes to 20, so that it could be used to make a line plot of the temperatures?

_____

_____

_____

6. Tyler planted 25 seedlings. One grew to 6 inches in height, 13 grew to 5 inches, 10 grew to 4 inches, and 1 grew to 3 inches. On a line plot of Tyler's data, which height would have the least number of Xs over it?

_____

Name _____ Date _____

Homework Practice

Problem-Solving Strategy

Solve. Use the *make a table* strategy.

1. Maya has a list of her friends' number of CDs. How many more friends have from 21 to 30 than from 11 to 20?

CDs				
10	11	10	21	29
28	19	13	27	26
25	26	30	11	22
21	26	17		

2. Hilda took a survey of her neighborhood to find out how many pets each family has. How many families have 2 or more pets?

Number of Pets								
0	3	1	0	2	4	1	1	2
0	0	4	2	1	3	0	1	2
5	1	2	0	0	5	2	1	1

_____

3. Steven took a survey of the building materials used to build the houses in his neighborhood. How many more houses are made of wood than of brick?

Building Materials						
W	W	B	S	S	W	S
B	W	W	W	B	B	S
S	W	B	B	W	S	S

W = wood

B = brick
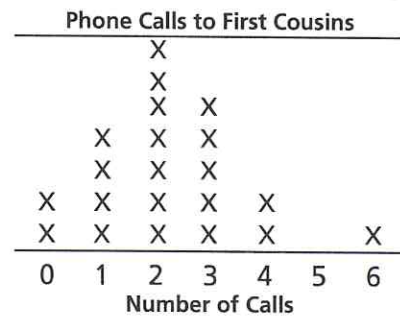
S = aluminum siding

_____

Spiral Review

Use the line plot for Exercises 4 and 5. (Lesson 2–4)

```
        Phone Calls to First Cousins
                X
                X
                X   X
            X   X   X
            X   X   X
    X   X   X   X   X
    X   X   X   X   X       X
    0   1   2   3   4   5   6
            Number of Calls
```

4. What is the most popular number of calls?

_____

5. What is the second least popular number of calls?

_____

Name _____ Date _____

Homework Practice

5SDAP1.1

Mean

Find the mean of each data set.

1. 40, 35, 45, 40, 30

_____

2. 35, 20, 5, 10, 30

_____

3. 33, 39, 3, 22, 3, 20

_____

4. 14, 42, 10, 60, 46, 32

_____

5. The Colombo family has 2, 4, 1, and 5 pairs of boots among them. What is the mean of the number of boots the Colombo family owns?

_____

6. Julie has 13 cousins. Emily has 5, and Amber has 12. What is the mean of the number of cousins the girls have?

_____

7.

Team Member	Ryan	Oliver	Kyle	Sam	Manny
Laps Run	22	17	21	10	15

_____

Spiral Review

Use the *make a table* strategy to solve. (Lesson 2–5)

8. For breakfast the class had four choices from which to choose. Some chose scrambled eggs (S), some chose an omelet (O), some chose pancakes (P), while still others chose a breakfast burrito (B). The results are shown below.

P P B B S S O B S P B O P S P B P B S

How many people chose scrambled eggs as their breakfast?

_____

Name _____ Date _____

Problem-Solving Practice

5SDAP1.1

Mean

Solve. Find the mean to the nearest whole number.

1. Janice is selling cookies for her scout troop. One day she sold 10 boxes, the next day 15, the third day she sold 12, and on the fourth day she sold 13. How many does she need to sell on the 5th day to reach her goal of an average of 13 boxes a day?

   _____

2. Clarence counted birds for a science project in the park every day for a week. He noticed 4 cardinals on the first day, 3 on the second day, 6 on the third day, and none on the fourth day. What is the average number of cardinals during the 4 days?

   _____

3. Each of Tabitha's friends has pets. Billy has 3 rabbits, Terrence has 4 kittens, Sarah has 2 goldfish, and Brianna has 1 dog. What is the average number of pets Tabitha's friends own? Remember to round up to the nearest whole number.

   _____

4. Shelly had 4 friends come to her house to study one day after school. The next day 6 friends came over to study, the third day only 2 friends came over. What is the average number of people who came to Shelly's house?

   _____

5. Jason downloaded songs for his MP3 player every week for a month. One week he downloaded 15 songs, the second week he downloaded 12, the third week he downloaded 10, and the fourth week he downloaded 20. What is the average number of songs he downloaded each week?

   _____

6. Write a problem in which the mean of a set of data must be determined.

   _____

   _____

   _____

   _____

   _____

Name _____ Date _____

Homework Practice

Median, Mode, and Range

For each data set, find the median, mode, and range.

22, 26, 19, 29, 23, 22, 39

1. Median _____
2. Mode _____
3. Range _____

11, 13, 12, 8, 12,

4. Median _____
5. Mode _____
6. Range _____

34, 33, 39, 44, 52, 52, 11

7. Median _____
8. Mode _____
9. Range _____
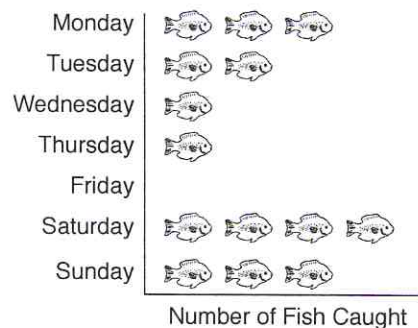
$3.25 $4.35 $3.50 $4.25 $3.35 $3.50 $3.50

10. Median _____
11. Mode _____
12. Range _____

Spiral Review

Find the mean. (Lesson 2–6)

13. In five days Jessica got 5 letters, 3 letters, 4 letters, and 2 letters, and 6 letters. What is the mean of letters Jessica received?

_____

14. Use the graph below to find the average number of fish caught.

Monday	🐟 🐟 🐟
Tuesday	🐟 🐟
Wednesday	🐟
Thursday	🐟
Friday	
Saturday	🐟 🐟 🐟 🐟
Sunday	🐟 🐟 🐟

Number of Fish Caught

_____

Name _____ Date _____

Problem-Solving Practice

5SDAP1.1

Median, Mode, and Range

Solve.

1. A convenience store sold 5 bottles of Super Cola, 6 bottles of Citrus Surprise, and 2 bottles of Mark's Root Beer. What is the range of these data?

   _____

2. Bryan keeps score for the girls' basketball team. In the last game, Mary scored 12 points; Julia, 2 points; Heather, 5 points; Brittany, 10 points; Heidi, 7 points; and Michelle, 1 point. To the nearest tenth, what is the median?

   _____

3. Martin made 17 hits out of 51 times at bat in May. He made 12 hits out of 45 times at bat in June, and 14 hits out of 59 times at bat in July. To the nearest thousandth, what is his batting average at the end of July? To find a batting average, first find the total number of hits, and add a decimal point and three zeros to the right of the number (for example, 12.000). Divide this number by the total number of times at bat. Is a batting average a range, a mode, a median, or a mean?

   _____

4. Bonnie measured the high temperature for each day of the week. Her readings were 20°C, 22°C, 22°C, 20°C, 20°C, 24,°C, and 25°C. What is the mode?

   _____

5. In science class, Rosa measured the distance traveled by a cart in 5 seconds. Her data are 4.6 ft, 2.3 ft, 6.9 ft, 4.4 ft, and 3.6 ft. What is the median?

   _____

6. Rita walks almost every day for exercise. One week she walked 9 blocks, 14 blocks, 10 blocks, 11 blocks, 18 blocks, and 15 blocks. What is the median distance she walked?

   _____

7. Mrs. Ramirez baked on five consecutive days for her school's bake sale. She baked 2 pies, 3 pies, 8 pies, 2 pies, and 6 pies. What is the mode of the number of pies Mrs. Ramirez baked?

   _____

8. Jake is practicing for a marathon. In the last month he has run 12 miles, 14 miles, 12 miles, 15 miles and 11 miles. What is the median distance he has run?

   _____

2-8

Homework Practice

Problem-Solving Investigation

5MR1.1, 4NS2.1

Extra or Missing Information

Solve or write *not enough information.*

1. Out of a class of 24 students, Timothy and 5 of his friends play baseball. A baseball team is made up of 9 players. How many more players do Timothy and his friends need to form a team?

_____

2. Donna took $25.53 with her when she went shopping. She bought a bracelet for $15.99 and a pair of earrings to match. How much money did she have left over?

_____

3. Connie took the train from her small town to a large city. She left at 1:00 P.M. and arrived at 4:23 P.M. The train cost $14 plus $0.10 a mile. How much did the train ride cost if she traveled 152 miles?

_____

4. Maria wants to make a cake for a family dinner. One cake will serve 10 people. Does she have enough cake to serve everyone?

_____

5. Nikolas is one of two halfbacks on a football team. His team scored 44 points during last week's game. Nikolas made one touchdown for 6 points and a safety for 2 points. If his team won last week's game by 14 points, how many points did Nikolas score?

_____

6. Lisa received tips during the holiday season from several of the customers on her newspaper route. There were 25 customers, and she received tips from 10 of them. Two customers gave her $5, one customer gave her $10, and five customers gave her $1. What was the total amount she received?

_____

Spiral Review

Find the median, mode, and range of the data set. (Lesson 2–7)

45, 49, 39, 45, 44, 64, 44, 41, 55

7. Median: _____

8. Mode: _____

9. Range: _____

Name _____ Date _____

Homework Practice

Selecting an Appropriate Display

Select an appropriate type of display for data gathered about each situation.

1. comparing the costs of four bicycles

   _____

2. showing the prices of cookies during one year

   _____

3. the number of students in a school and their ages in equal intervals

   _____

4. the number of boys who attended Camp Green Tree each year from 2004–2006

   _____

5. comparing the populations of the largest cities in California

   _____

Spiral Review

Identify the missing information or extra information in each exercise. (Lesson 2–8)

6. Out of a class of 26 students, Brianne and her 3 friends play on a soccer team. If there are 7 other students on the team, how many total players are on the soccer team?

   _____

7. Pat had $40 when he went shopping. He bought two pairs of socks at $5 each, a belt for $14, and a soda. How much money did he have left?

   _____

Name _____ Date _____

Problem-Solving Practice

Selecting an Appropriate Display

1. Raymond wants to know how many of each kind of sports jersey he owns. What graph would you use to best represent the following?

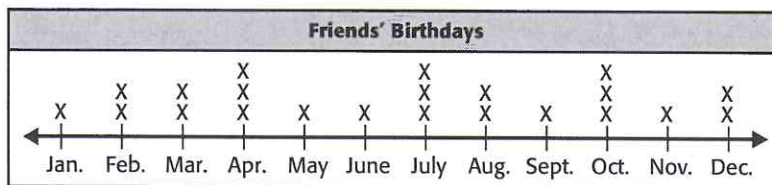| Sports Jersey	Number of Jerseys
Soccer	3
Football	1
Baseball	4
Basketball	2
Hockey	5

_____

2. Hannah wanted to spend less money on clothes. Graph the amount of money she spent during a 6-month period and whether she met her goal to spend less. Explain your choice of graph.

_____

_____

3.

Friends' Birthdays

```
                    X                   X                   X
        X     X     X         X         X         X         X
  X     X     X     X    X    X    X    X    X    X    X
  |     |     |     |    |    |    |    |    |    |    |    |
 Jan.  Feb.  Mar.  Apr.  May June July Aug. Sept. Oct. Nov. Dec.
```

Explain why this graph is the best choice to show this information. How might a person use the information this graph provides?

_____

_____

38

Name _____ Date _____

Homework Practice

Integers and Graphing

Write an integer to represent each piece of data.

1. The temperature rose 5 degrees.

_____

2. Greg lost $4 on the way to school.

_____

3. Justine grew 2 inches last year.

_____

4. Robby withdrew $10 from the bank.

_____

Graph each integer on a number line.

5. −3

_____

6. +4

_____

7. −6

_____

Spiral Review

Select an appropriate display for data gathered about each situation. Explain your reasoning. (Lesson 2–9)

8. the number of push-ups Carlos has done each day during his training for football

_____

9. the miles of coastline of all of the westernmost California counties

_____

10. the number of points Darren scored for his basketball team each year he played

_____

Name _____ Date _____

Problem-Solving Practice

Integers and Graphing

Solve.

1. Frederico located −5 on a number line. Marge located the opposite. What number did Marge locate?

_____

2. Valerie lives in a small community in California. The elevation of this community is 300 feet below sea level. Write an integer to represent this elevation.

_____

3. Lan keeps temperature records for the weather station at her school. She recorded a low temperature of 15°F on Monday. The low temperature on Tuesday was seven degrees lower than the low temperature on Monday. The low temperature on Wednesday was ten degrees less than the temperature on Tuesday. What was the low temperature on Wednesday?

_____

4. On the first play, a football team moved the ball − 6 yards. On the next play, the team moved the ball exactly the opposite. Did the team gain or lose yards on the second play? How many yards?

_____

5. The temperature on a cold day in Columbus, Ohio, is four degrees below zero. Where would this temperature be found on a number line?

_____

6. Simon lives in a cold climate. He measures the low temperatures for one week. These temperatures are 0°F, −2°F, 1°F, 4°F, −6°F, −7°F, and 2°F. Write these numbers from least to greatest.

_____

7. Adam earned $45 at an after-school job. He received an allowance of $10. He went to the store with his mother and wanted to purchase a CD player for $60. He did not have enough money with him, so his mother loaned him enough to make his purchase. He will pay her back. Write an integer to represent the amount of money Adam had to borrow.

_____

8. The low temperature on Saturday was ⁻5°F. The low temperature on Sunday was ⁻9°F. Which day was colder?

_____