$\qquad$
$\qquad$
$\qquad$

## 5

## Short Answer

## Estimate by rounding to the nearest whole number.

1. $114.3406-19.2647$

## Subtract.

2. $7.42-1.9$

Evaluate each expression for the given value of the variable.
3. $5 w$ if $w=3$
4. The number of pets owned by some students in Ms. Hamilton's science class is in the line plot below. How many students took part in the survey? How many pets are owned in all by these students?

5. Find the area of the shaded region. Express your answer as a fraction. Justify your answer.


## Evaluate each expression．

6．$s+f$ if $s=7$ and $f=12$
Evaluate each expression．
7． $576-(16 \times 9)$

Find the mean for each set of data．
8． $32,46,26,45,32,43,28$

Several students went bowling after school．Their scores are shown in the frequency table．

| Score | Tally | Frequency |
| :---: | :---: | :---: |
| Under 100 | 則 | 6 |
| 100－109 | Y110｜ | 7 |
| 110－119 | Y界以界析 | 12 |
| 120－129 | 1112 | 5 |
| 130－139 | III | 3 |
| Over 140 | ｜｜ | 2 |

9．If these same students were to bowl another game，how many scores above 150 would you expect to see？

At the Woodlands Summer Camp, teams of three students compete in an obstacle course race through the woods. Along the way, the teams must use the skills they've learned to solve problems. The results of the race are shown in the bar graph.

10. How much longer did the Condors take than the Owls to complete the race?

Two fifth grade classrooms collected box tops for four months during the year.

11. How many more box tops did Class A collect than Class B in the month of February?

Lisa runs a small business from her home arranging and selling floral displays. She has plotted her sales figures from the first six quarters in the line graph. Use the graph to answer the following questions.

12. What were Lisa's total sales during the second quarter?

Select an appropriate type of graph for data gathered about each situation.
13. The number of people that made the two-point shot at an amusement park game.
14. The highest batting average over the 2006 baseball season.
15. The number of two-point field goals compared to the number of three-point field goals each player made.

Write each improper fraction as a mixed number.
16. $\frac{22}{7}$

Replace each $\bigcirc$ with $<,>$, or $=$ to make a true statement.
17. $\frac{6}{8} \bigcirc \frac{30}{40}$

Subtract. Write the difference in simplest form.
18. $\frac{7}{8}-\frac{1}{8}$

## Add. Write the sum in simplest form.

19. $1 \frac{3}{8}+1 \frac{1}{8}$
20. $1 \frac{1}{10}+1 \frac{1}{2}$

Subtract. Write the difference in simplest form.
21. $1 \frac{3}{4}-1 \frac{1}{4}$

Find the perimeter of each figure.
22.


## Estimate the area of each figure. Each square represents 1 square centimeter.

24. 



Solve. Use the make a model strategy.
25. Nancy is filling the bottom of a box with caramel candies. The rectangular box is 8 inches by 4 inches and the candies are $\frac{1}{2}$-inch squares. How many candies will she need?

Find the surface area of each solid. Round to the nearest tenth if necessary.
26.


Determine whether you need to find the perimeter, area, or volume.
27. A rectangular flower garden is 6 feet long and 3 feet wide. What measurement is needed to find the amount of border that is needed to enclose the entire garden?

Multiply. Write in simplest form.
28. $\frac{8}{13} \times \frac{6}{7}$
29. $2 \frac{2}{5} \times \frac{9}{17}$

Find each quotient. Write in simplest form.
30. $7 \frac{1}{2} \div 2$
31. $2 \frac{1}{5} \div 2 \frac{1}{4}$

## Solve. Use the four-step plan.

32. Emily is playing a game that uses a spinner with two equal parts. When the spinner lands on green, she advances her playing piece 4 spaces. When the spinner lands on red, she goes back 2 spaces. After 5 spins, Emily is 8 spaces ahead of where she started. How many times did she land on green and on red?

## Solve.

33. Alicia grows at an average rate of one and seventy-five hundredths of an inch each year. Write this number in standard form and in expanded form.

## Tell whether an exact number or estimate is needed. Then solve.

34. Carie and her friend Sade are planning a trip to the amusement park. They know that they will each need $\$ 20$ to get in and approximately $\$ 15$ for food and drinks. How much money will the girls need to go to the amusement park?

## Subtract to solve. Use addition or estimation to check.

35. There are 898 steps in the Washington Monument. It is a security guard's job to walk up the steps every day. If he goes up 482 steps and stops to rest, how many more steps does he have to go until he reaches the top?

## Solve. Use the act it out strategy.

36. Jenny bought a string of 30 green lights. She decided she wanted multicolor lights instead, so she exchanged the bulbs. She replaced every third green bulb with a blue one. She then replaced every fourth bulb with a red one. Finally, she replaced every fifth bulb with a yellow one. How many green bulbs were left?
37. A doctor's office gives candy to every child that comes in. They bought a bag of 200 pieces of candy at the beginning of the month. That month they had 173 children in the office. At the end of the month they bought another bag of 200 pieces. How much candy did they have after buying the second bag?

## Use any strategy shown below to solve the problem.

| Problem-Solving Strategies |
| :--- |
| Guess and check. |
| Work backward. |
| Draw a picture |
| Act it out. |
| Solve a simpler problem. |

38. A country club is putting up fencing around two tennis courts that are side by side. Each court is 60 feet wide by 120 feet long. How much fencing is needed?

## Solve. Use the make a table strategy.

39. Billy's football team scored a touchdown for every 10 plays it made. Each touchdown is worth 7 points. How many touchdowns did the team score if it made 50 plays? How many points did the team score? Complete the table to help you find the answers.

| plays | 10 | 20 | 30 | 40 | 50 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| touchdowns | 1 | 2 | $\square$ | $\square$ | $\square$ |

## Make a line plot for each set of data.

40. 

| Average Grades in <br> Science Class |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 62 | 73 | 76 | 77 | 52 |
| 73 | 66 | 45 | 91 | 77 |
| 81 | 90 | 96 | 68 | 89 |
| 61 | 82 | 82 | 86 | 70 |

Make a frequency table for each set of data.
41.

| How Students Get to <br> School <br> Each Day |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| B | P | B | P | P |
| P | B | P | P | B |
| P | W | B | P | B |
| W | P | B | B | P |
| P | B | P | W | B |

$\mathrm{P}=$ Parents, $\mathrm{W}=$ Walk, $\mathrm{B}=$ Bus

Make a bar graph or double bar graph for each set of data.
42. The table shows how many camps each student plans to attend this summer.

| Student | Number <br> of Camps |
| :---: | :---: |
| Kris | 2 |
| Tammy | 4 |
| Molly | 1 |
| Darryl | 4 |

Make a line graph or double line graph for each set of data.
43.

| Goals Allowed |  |  |
| :---: | :---: | :---: |
| Game | Third grade | Sixth <br> Grade |
| 1 | 12 | 6 |
| 2 | 11 | 5 |
| 3 | 10 | 4 |
| 4 | 9 | 1 |
| 5 | 8 | 2 |

## Solve.

44. Find the mean, median and mode of the data represented.

Jeremy's Running Schedule

45. Find the perimeter of the larger rectangle in inches.

11.1 ft
46. The Lincoln Middle School athletic department added more seating in the bleacher section of their track field. The original seating area measured 80 meters by 60 meters. The additional seating added 15 meters to each side of the length and 20 meters to the top of the bleacher section. Find the perimeter of the bleacher section after the addition. What is the difference between the perimeter of the old bleacher section and the new bleacher seating?

## Find the fraction. Then give an equivalent fraction.

47. Sandra spends 8 hours a day at school. What fraction of the day does she spend at school?

Find the fraction. Then change it into its simplest form.
48. Barry eats 3 meals a day. It takes him 1 hour to eat each meal. What fraction of the day does Barry spend eating?
49. The table shows what part of the total dollar amount each student raised during the last fund-raising drive. Find what part of the total fund-raising amount Audrey raised. Justify your answer.

| Contribution Amounts |  |
| :--- | :---: |
| Jenna | $\frac{1}{10}$ |
| Sabrina | $\frac{2}{5}$ |
| Cheyenne | $\frac{1}{3}$ |
| Maya | $\frac{1}{8}$ |
| Audrey | $?$ |

## Solve each problem.

50. Rachel and Helen are leaving for vacation on the same day. Rachel will be gone for 14 days and Helen will be gone for 1 week and 3 days. Who will return from vacation sooner? What is the difference between Rachel and Helen's vacation duration?

## Solve using any of the following strategies.

## Problem-Solving Strategies

Draw a diagram.
Look for a pattern.
Use logical reasoning.
51. Sandra and Nancy are playing a game at recess. They are facing each other and are 20 feet apart. They take turns taking a step toward one another. Nancy goes first and steps 2 feet each time. Sandra goes second and steps 3 feet each time. How far will each girl have gone when they meet?

## Graph each figure and the translation image described. Write the ordered pairs for the vertices of the image.

52. A square has vertices $R(3,1), S(6,1), T(6,4)$, and $U(3,4)$. Translate the square two units right and four units up.
53. Find the surface area of this rectangular prism.

54. Caleb estimates that the surface area of a rectangular prism with a length of 15.7 centimeters, a width of 8.9 centimeters, and a height of 3.1 centimeters is about 600 cubic centimeters. Is his estimate reasonable? Explain your reasoning.

## 5

## Answer Section

## SHORT ANSWER

1. ANS:

95

| PTS: 1 | DIF: Average | REF: Lesson 2-2 OBJ: 2-2.2 Estimate differences |
| :--- | ---: | :--- |
| NAT: G5-FP2 | STA: 6.C.2b | TOP: Estimate Sums and Differences |
| KEY: Estimate, Differences |  |  |

2. ANS:
5.52

Align the decimal point for both numbers. Place the decimal point for the answer under the decimal point for the numbers to be subtracted. Subtract the second number from the first number.

PTS: 1 DIF: Average REF: Lesson 2-6
OBJ: 2-6.2 Subtract decimals through thousandths
STA: 6.B. 2 TOP: Add and Subtract Decimals KEY: Decimals, Subtraction
3. ANS:

15
You can evaluate an algebraic expression by replacing the variables with numbers and then finding the value of the numerical expression.

PTS: 1 DIF: Average REF: Lesson 5-3
OBJ: 5-3.2 Evaluate multiplication expressions
STA: 8.B. 2 TOP: Multiplication Expressions KEY: Expressions, Multiplication
4. ANS:

10 students took part in the survey, and these students own a total of 53 pets. Add the number of Xs for the number of students that took part in the survey. Add the data that each X represents to find the total number of pets.

PTS: 1 DIF: Average REF: Lesson 7-3
OBJ: 7-3.3 Make and interpret line plots - Solve multi-step problems
NAT: G5-FP6C | G5-FP4C STA: 10.B.2b | 10.B.2c
TOP: Line Plots KEY: Line plots
5. ANS:
$309 \frac{4}{5} \mathrm{~m}^{2}$; the area of the larger rectangle is $32 \frac{1}{5} \times 22 \frac{1}{5}$ or $714 \frac{21}{25} \mathrm{~m}^{2}$. The area of the smaller rectangle is $24 \frac{2}{5} \times 16 \frac{3}{5}$ or $405 \frac{1}{25} \mathrm{~m}^{2}$. The area of the shaded region is the difference in the two rectangle areas, $714 \frac{21}{25}-405 \frac{1}{25}$ or $309 \frac{4}{5} \mathrm{~m}^{2}$.

PTS: 1 DIF: Average REF: Lesson 14-3
OBJ: 14-3.2 Find the areas of rectangles - Solve multi-step problems
NAT: G5-FP3 | G5-FP5C STA: 7.A.2a TOP: Areas of Rectangles and Squares
KEY: Area, Rectangles
6. ANS:

19
You can evaluate an algebraic expression by replacing the variables with numbers and then finding the value of the numerical expression.

PTS: 1 DIF: Average REF: Lesson 5-4
OBJ: 5-4.2 Evaluate algebraic expressions
STA: 8.B. 2 TOP: More Algebraic Expressions
NAT: G5-FP4C
ANS:
432
Simplify all operations within grouping symbols.
Multiply and divide in order from left to right.
Add and subtract in order from left to right.
PTS: 1 DIF: Average REF: Lesson 5-7
OBJ: 5-7.1 Use order of operations to evaluate expressions
NAT: G5-FP4C
STA: 8.C. 2 TOP: Order of Operations
KEY: Order of operations
8. ANS:

36
Sample:
$24,24,8,11,10,17,25$
Add the numbers and divide by 7 .
$\frac{24+24+8+11+10+17+25}{7}=\frac{119}{7}=17$

PTS: 1 DIF: Average REF: Lesson 7-1
OBJ: 7-1.1 Find the mean of a set of data
STA: 10.A.2b TOP: Mean, Median, and Mode
NAT: G5-FP6C | G5-FP4C
KEY: Mean, Analyzing data
9. ANS:

1
Since there were only 2 scores above 140 last time, there would probably be no more than 1 score above 150 this time. Option c is the most reasonable answer.

PTS: 1 DIF: Average REF: Lesson 7-4 OBJ: 7-4.1 Interpret frequency tables
NAT: G5-FP6C | G5-FP4C STA: 10.B.2c TOP: Frequency Tables
KEY: Frequency tables
10. ANS:

6 minutes
Subtract the time for the Owls from the time for the Condors.
$28-22=6$ minutes

PTS: 1 DIF: Average REF: Lesson 7-6
OBJ: 7-6.1 Interpret bar graphs and double bar graphs NAT: G5-FP6C | G5-FP4C
STA: 10.B.2c TOP: Bar Graphs KEY: Bar graphs
11. ANS:

100
Look at the bars for the month of February. Class A collected 225 box tops and Class B collected 125 box tops. The difference is 100 .

PTS: 1 DIF: Average REF: Lesson 7-6
OBJ: 7-6.1 Interpret bar graphs and double bar graphs NAT: G5-FP6C | G5-FP4C
STA: 10.B.2c TOP: Bar Graphs KEY: Bar graphs
12. ANS:
\$12,000
The sales in the second quarter were $\$ 12,000$.

PTS: 1 DIF: Average REF: Lesson 7-7
OBJ: 7-7.1 Interpret line graphs and double line graphs NAT: G5-FP6C | G5-FP4C
STA: 10.B.2c TOP: Line Graphs KEY: Line graphs
13. ANS:
line plot
A line plot shows how often each number occurs.

PTS: 1 DIF: Average REF: Lesson 7-8
OBJ: 7-8.1 Select and make an appropriate graph for presenting data
NAT: G5-FP6C | G5-FP4C STA: 10.B.2b TOP: Use an Appropriate Graph
KEY: Graphs, Data
14. ANS:
line graph
A line graph represents data that changes over time.
PTS: 1 DIF: Average REF: Lesson 7-8
OBJ: 7-8.1 Select and make an appropriate graph for presenting data
NAT: G5-FP6C | G5-FP4C STA: 10.B.2b TOP: Use an Appropriate Graph
KEY: Graphs, Data
15. ANS:
double bar graph
A double bar graph shows the comparison of two different categories.
PTS: 1 DIF: Average REF: Lesson 7-8
OBJ: 7-8.1 Select and make an appropriate graph for presenting data
NAT: G5-FP6C | G5-FP4C STA: 10.B.2b TOP: Use an Appropriate Graph
KEY: Graphs, Data
16. ANS:
$3 \frac{1}{7}$

PTS: 1 DIF: Average REF: Lesson 8-2
OBJ: 8-2.1 Write improper fractions as mixed numbers NAT: G5-FP2 | G5-FP4C
STA: 6.A. 2 TOP: Improper Fractions
KEY: Improper fractions, Mixed numbers
17. ANS:
=
Sample:
$\frac{6}{11} \bigcirc \frac{1}{4}$
Find the LCM for both denominators. Rewrite each fraction using the LCM. Then compare the fractions.
$\frac{6 \times 4}{11 \times 4} \bigcirc \frac{1 \times 11}{4 \times 11}$
$\frac{24}{44}>\frac{11}{44}$

PTS: 1 DIF: Average REF: Lesson 9-9
OBJ: 9-9.1 Compare fractions using common denominators
STA: 6.A. 2 TOP: Compare Fractions
NAT: G5-FP4C | G5-FP2
KEY: Compare, Common denominators
18. ANS:
$\frac{3}{4}$
To subtract fractions with like denominators, subtract the numerators. Use the same denominator in the difference.

PTS: 1 DIF: Average REF: Lesson 10-2
OBJ: 10-2.1 Subtract fractions with like denominators NAT: G5-FP4C | G5-FP2
STA: 6.B. 2 TOP: Subtract Like Fractions KEY: Fractions, Subtraction
19. ANS:
$2 \frac{1}{2}$
To add mixed numbers, add the fractions. Then add the whole numbers. Rename and simplify if necessary.
PTS: $1 \quad$ DIF: Average
NAT: G5-FP4C $\mid$ G5-FP2
KEY: Mixed numbers, Addition
STA: Lesson 10-7
ANS:
OBJ:
2 $\frac{3}{5}$

To add mixed numbers, add the fractions. Then add the whole numbers. Rename and simplify if necessary.
PTS: $1 \quad$ DIF: Average
NAT: G5-FP4C $\mid$ G5-FP2
KEY: Mixed numbers, Addition
STA: Lesson 10-7
ANS:
$\frac{1}{2}$

To subtract mixed numbers, subtract the fractions. Then subtract the whole numbers. Rename and simplify if necessary.

PTS: 1 DIF: Average REF: Lesson 10-8 OBJ: 10-8.1 Subtract mixed numbers
NAT: G5-FP4C | G5-FP2 STA: 6.B. 2 TOP: Subtract Mixed Numbers
KEY: Mixed numbers, Subtraction
22. ANS:
12.6 in.

The perimeter of a rectangle is the sum of the measures of the sides. It can also be expressed as two times the length $(l)$ plus two times the width $(w)$.
$2.1+2.1+4.2+4.2=12.6$

PTS: 1 DIF: Average REF: Lesson 14-1

OBJ: 14-1.1 Find the perimeters of polygons
STA: 7.A.2a TOP: Perimeters of Polygons

NAT: G5-FP3 | G5-FP5C
KEY: Perimeter
23. ANS:
31.8 cm

The perimeter of a rectangle is the sum of the measures of the sides. It can also be expressed as two times the length $(l)$ plus two times the width $(w)$.
$5.3+5.3+10.6+10.6=31.8$

PTS: 1 DIF: Average REF: Lesson 14-1
OBJ: 14-1.1 Find the perimeters of polygons
NAT: G5-FP3 | G5-FP5C
STA: 7.A.2a TOP: Perimeters of Polygons KEY: Perimeter
24. ANS:
$50 \mathrm{~cm}^{2}$
There are 42 whole squares and 16 partial squares.

PTS: 1 DIF: Average REF: Lesson 14-2
OBJ: 14-2.1 Find and estimate the area of figures by counting squares
NAT: G5-FP3 | G5-FP5C TOP: Area KEY: Area, Estimate
25. ANS:

128
The length of the box will hold 16 carmel candies and the width will hold 8 carmel candies. Eight times 16 is 128 carmel candies.

PTS: 1 DIF: Average REF: Lesson 14-5
OBJ: 14-5.1 Solve problems by making a model NAT: G5-FP3|G5-FP5C
STA: 9.A.2a TOP: Problem-Solving Strategy: Make a Model
KEY: Make model
26. ANS:
$430 \mathrm{~mm}^{2}$
Sample:


Find the area of each of the six faces. Add these together to find the total surface area.
$S A=2(9)(5)+2(5)(13)+2(9)(13)$
$S A=90+130+234$
$S A=454 \mathrm{ft}^{2}$

PTS: 1 DIF: Average REF: Lesson 14-7
OBJ: 14-7.1 Find the surface area of rectangular prisms NAT: G5-FP3| G5-FP5C
STA: 7.A.2a TOP: Surface Area of Prisms KEY: Surface area, Prisms
27. ANS:
perimeter
The perimeter is the length around a figure.
PTS: 1 DIF: Average REF: Lesson 14-8
OBJ: 14-8.1 Select and use appropriate units and formulas to measure length, perimeter, area, and
volume NAT: G5-FP3 | G5-FP5C STA: 7.A.2a

TOP: Select Appropriate Measurement Formulas KEY: Units, Formulas
28. ANS:
$\frac{48}{91}$
To multiply fractions, multiply the numerators and multiply the denominators. Write your answer in simplest form.

PTS: 1 DIF: Basic REF: Lesson 5-7 OBJ: 5-7.1 Multiply fractions.
NAT: FP1 STA: 6.B.3a|6.C.3a TOP: Multiply fractions.
KEY: Multiplication | Fractions
29. ANS:
$1 \frac{23}{85}$
To multiply mixed numbers, convert both factors to improper fractions. Then multiply the numerators and denominators. Simplify.

PTS: 1 DIF: Average REF: Lesson 5-8 OBJ: 5-8.1 Multiply mixed numbers.
NAT: FP1 STA: 6.B.3a|6.C.3a TOP: Multiply mixed numbers.
KEY: Multiplication | Mixed numbers
30. ANS:
$3 \frac{3}{4}$
To divide mixed numbers, change both of them to fractions. Then multiply the first by the reciprocal of the second.

PTS: 1 DIF: Average REF: Lesson 5-10 OBJ: 5-10.1 Divide mixed numbers.
NAT: FP1|FP4C STA: 6.B.3a|6.C.3a TOP: Divide mixed numbers.
KEY: Division | Mixed numbers
31. ANS:
$\frac{44}{45}$
To divide mixed numbers, change both of them to fractions. Then multiply the first by the reciprocal of the second.

PTS: 1 DIF: Average REF: Lesson 5-10 OBJ: 5-10.1 Divide mixed numbers.
NAT: FP1 | FP4C STA: 6.B.3a|6.C.3a TOP: Divide mixed numbers.
KEY: Division | Mixed numbers
32. ANS:
$4 \times 3$ green $=12$ ahead
$2 \times 2$ red $=4$ backwards
$12-4=8$ spaces ahead. Therefore, Emily landed on green 3 times and red 2 times.

PTS: 1 DIF: Average REF: Lesson 1-3
OBJ: 1-3.2 Use the four-step plan to solve a problem - Solve multi-step problems
NAT: G5-FP7C STA: 6.C.2a TOP: Problem-Solving Investigation: Use the Four-Step Plan
KEY: Four-step plan
33. ANS:
1.075
$1+0.07+0.005$

PTS: 1 DIF: Average REF: Lesson 1-5
OBJ: 1-5.5 Read and write decimals in standard form, expanded form, and word form - Solve multi-step problems NAT: G5-FP7C STA: 6.A. 2 TOP: Place Value Through Thousandths KEY: Place value, Decimals
34. ANS:
estimate
$\$ 20+\$ 15+\$ 20+\$ 15=\$ 70$

PTS: 1 DIF: Average REF: Lesson 2-5
OBJ: 2-5.2 Determine if a problem needs an estimate or an exact answer - Solve multi-step problems
NAT: G5-FP2 STA: 6.C.2b
TOP: Problem-Solving Investigation: Estimate or Exact Answer
KEY: Estimate or exact
35. ANS:

Solve: $898-482=416$ steps
Check with addition: $482+416=898$
or
Estimate: $900-480=420$ years
Check: 420 is close to 416 . Therefore, it is reasonable.

PTS: 1 DIF: Average REF: Lesson 2-8
OBJ: 2-8.3 Use the compensation strategy to add and subtract whole numbers and decimals mentally -
Solve multi-step problems NAT: G5-FP2 STA: 6.C.2a
TOP: Add and Subtract Mentally KEY: Addition, Subtraction
36. ANS:

12 green bulbs are left.
Act it out with colored cubes.

PTS: 1 DIF: Average REF: Lesson 4-5
OBJ: 4-5.2 Solve problems using the act it out strategy - Solve multi-step problems
NAT: G5-FP1 | G5-FP7C STA: 6.C.2a
TOP: Problem-Solving Strategy: Act It Out KEY: Act it out
37. ANS:

They had 227 pieces of candy.
$200-173+200=227$

PTS: 1 DIF: Average REF: Lesson 4-5
OBJ: 4-5.2 Solve problems using the act it out strategy - Solve multi-step problems
NAT: G5-FP1 | G5-FP7C STA: 6.C.2a
TOP: Problem-Solving Strategy: Act It Out
KEY: Act it out
38. ANS:

480 feet

$120 \times 2+60 \times 4=480$

PTS: 1 DIF: Average REF: Lesson 5-5
OBJ: 5-5.2 Choose the best strategy to solve a problem - Solve multi-step problems
NAT: G5-FP4C STA: 6.C.2a
TOP: Problem-Solving Investigation: Choose the Best Strategy
KEY: Choose strategy
39. ANS:

5 touchdowns; 35 points
$5 \times 7=35$

PTS: 1 DIF: Average REF: Lesson 6-3
OBJ: 6-3.2 Solve problems by making a table - Solve multi-step problems
NAT: G5-FP4C STA: 10.B.2b TOP: Problem-Solving Strategy: Make a Table
KEY: Make table
40. ANS:


PTS: 1 DIF: Average
NAT: G5-FP6C | G5-FP4C
KEY: Line plots

41．ANS：

| Method of Transportation | Tally | Frequency |
| :---: | :---: | :---: |
| P |  | 12 |
| W | ｜II | 3 |
| B | 界以男 | 10 |

Mark each entry with a tally mark and then add them to find the frequency of each category．
PTS： 1 DIF：Average REF：Lesson 7－4 OBJ：7－4．2 Make frequency tables NAT：G5－FP6C｜G5－FP4C STA：10．B．2b TOP：Frequency Tables
KEY：Frequency tables
42．ANS：


Draw and label appropriate vertical and horizontal axes．Then draw a bar to represent each data point．All reasonably drawn graphs should be accepted．

PTS： 1 DIF：Average REF：Lesson 7－6
OBJ：7－6．2 Make bar graphs and double bar graphs
NAT：G5－FP6C｜G5－FP4C
STA：10．B．2b TOP：Bar Graphs KEY：Bar graphs
43. ANS:

Goals Allowed


Plot each data point on a coordinate grid. Connect sequential points with line segments. Use different colors or points for each line. Make a key. All reasonably drawn graphs should be accepted.

PTS: 1 DIF: Average REF: Lesson 7-7
OBJ: 7-7.2 Make line graphs and double line graphs $\quad$ NAT: G5-FP6C | G5-FP4C
STA: 10.B.2b TOP: Line Graphs KEY: Line graphs
44. ANS:
mean: 8 , median: 7 , mode: 4

Order the data from least to greatest to find the median. Find the sum of all the miles run during the week and divide by 7 to find the mean.

PTS: 1 DIF: Average REF: Lesson 7-1
OBJ: 7-1.4 Find the mean, median, and mode of a set of data - Solve multi-step problems
NAT: G5-FP6C | G5-FP4C STA: 10.A.2b TOP: Mean, Median, and Mode
KEY: Mean, Median, Mode
45. ANS:
493.2 in.

Convert the measurements to inches.
$9.45 \times 12=113.4$
$11.1 \times 12=133.2$
Use the formula $P=2 l+2 w$ to find the perimeter.
$P=2(113.4)+2(133.2)=493.2$

PTS: 1 DIF: Average REF: Lesson 14-1
OBJ: 14-1.2 Find the perimeters of polygons - Solve multi-step problems
NAT: G5-FP3 | G5-FP5C
STA: 7.A.2a TOP: Perimeters of Polygons
KEY: Perimeter
46. ANS:

380 meters; 100 meters

The original dimensions were 80 meters by 60 meters. The perimeter for the old bleacher section was $2(80)+2(60)$ or 280 meters. The length increased by 15 meters on each side, so the length is now 15 $+80+15$ or 110 meters. The height increased by 20 meters, but only to one side, so the height is now $60+20$ or 80 meters. Use the formula $P=2 l+2 w$ to find the perimeter. $P=2(110)+2(80)=$ 380 meters
The difference between the perimeters is $380-280$ or 100 meters.
PTS: 1 DIF: Average REF: Lesson 14-1
OBJ: 14-1.2 Find the perimeters of polygons - Solve multi-step problems
NAT: G5-FP3 | G5-FP5C STA: 7.A.2a TOP: Perimeters of Polygons
KEY: Perimeter
47. ANS:
$\frac{8}{24}$; possible equivalent fractions: $\frac{1}{3}, \frac{2}{6}, \frac{4}{12}$

PTS: 1 DIF: Average REF: Lesson 9-3
OBJ: 9-3.2 Write a fraction that is equivalent to a given fraction - Solve multi-step problems
NAT: G5-FP4C | G5-FP2 STA: 6.A. 2 TOP: Equivalent Fractions
KEY: Fractions, Equivalent
48. ANS:
$\frac{3}{24}$; simplest form: $\frac{1}{8}$

PTS: 1 DIF: Average REF: Lesson 9-4
OBJ: 9-4.2 Write a fraction in simplest form - Solve multi-step problems
NAT: G5-FP4C | G5-FP2 STA: 6.A. 2 TOP: Simplest Form
KEY: Simplest form
49. ANS:
$\frac{1}{24}$; sample answer: The LCD of $\frac{1}{10}, \frac{2}{5}, \frac{1}{3}$, and $\frac{1}{8}$ is 240 . I made equivalent fractions and found the sum of the given amounts. Then I subtracted this sum from 1 and simplified it.

The equivalent fractions are $\frac{24}{240}, \frac{96}{240}, \frac{80}{240}$, and $\frac{30}{240}$. The sum of these fractions is $\frac{230}{240}$, so the remaining fraction must be $\frac{10}{240}$, or $\frac{1}{24}$.

PTS: 1 DIF: Average REF: Lesson 10-4
OBJ: 10-4.2 Subtract unlike fractions - Solve multi-step problems
NAT: G5-FP4C | G5-FP2 STA: 6.B. 2 TOP: Subtract Unlike Fractions
KEY: Fractions, Unlike denominators
50. ANS:

Helen will return from vacation sooner. Rachel's vacation is 4 days longer.
$1 \mathrm{wk}=7$ days
7 days +3 days $=10$ days
14 days $>10$ days

PTS: 1 DIF: Average REF: Lesson 11-5
OBJ: 11-5.2 Convert units of time - Solve multi-step problems
NAT: G5-FP5C STA: 7.A.2a TOP: Units of Time
KEY: Time, Convert
51. ANS:

Sandra: 12 feet, Nancy: 8 feet

PTS: 1 DIF: Average REF: Lesson 13-5
OBJ: 13-5.2 Choose the best strategy to solve a problem - Solve multi-step problems NAT: G5-FP3 STA: 6.C.2a
TOP: Problem-Solving Investigation: Choose the Best Strategy
KEY: Choose strategy
52. ANS:

$R(5,5), S(8,5), T(8,8), U(5,8)$

PTS: 1 DIF: Average REF: Lesson 13-6
OBJ: 13-6.2 Sketch translations on a coordinate grid - Solve multi-step problems NAT: G5-FP3 STA: 9.A.2c TOP: Translations and Graphs
KEY: Translations
53. ANS:
$444 \mathrm{~m}^{2}$

Find the area of each face. The area of the top and bottom are $2(l w)=2(10 \times 13)$ or $260 \mathrm{~m}^{2}$. The area of the front and back faces are $2(l w)=2(10 \times 4)$ or $80 \mathrm{~m}^{2}$. The areas of the two sides are $2(l w)=2(13$ $\times 4)$ or $104 \mathrm{~m}^{2}$. Add together all the areas of the faces. The total surface area is $260+80+104$ or $444 \mathrm{~m}^{2}$.

PTS: 1 DIF: Average REF: Lesson 14-7
OBJ: 14-7.2 Find the surface area of rectangular prisms - Solve multi-step problems
NAT: G5-FP3 | G5-FP5C STA: 7.A.2a TOP: Surface Area of Prisms
KEY: Surface area, Prisms
54. ANS:
no; round each measurement to the nearest whole number, and find the area of each face. The areas of the top and bottom faces are $2(l w)=2(16 \times 9)$ or $288 \mathrm{~cm}^{2}$. The areas of the front and back faces are $2(l w)=2(16 \times 3)$ or $96 \mathrm{~cm}^{2}$. The areas of the two sides are $2(l w)=2(9 \times 3)$ or $54 \mathrm{~cm}^{2}$. The surface area is $288+96+54$ or about $438 \mathrm{~cm}^{2}$. Caleb's estimate is too high.

PTS: 1 DIF: Average REF: Lesson 14-7
OBJ: 14-7.2 Find the surface area of rectangular prisms - Solve multi-step problems
NAT: G5-FP3 | G5-FP5C STA: 7.A.2a TOP: Surface Area of Prisms
KEY: Surface area, Prisms

