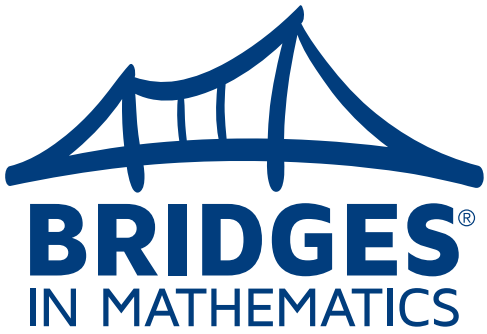


Grade 4 Unit 4 Module 4
Practice Pages for Math at Home

NAME | DATE

Butterfly Wingspans

Use the table to answer the questions below.

Butterfly wingspans	
Butterfly	**Wingspan**
American Copper Butterfly	$1\frac{1}{4}$ inch
Blue Morpho Butterfly	6 inches
Eastern Tiger Swallowtail Butterfly	$4\frac{1}{2}$ inches
Monarch Butterfly	$3\frac{3}{4}$ inches
Queen Alexandra's Birdwing Butterfly	11 inches
Zebra Swallowtail Butterfly	$2\frac{1}{2}$ inches

1 What do you notice about the data in the table? Write at least two observations.

2 What is the shortest (minimum) wingspan? _____

3 What is the longest (maximum) wingspan? _____

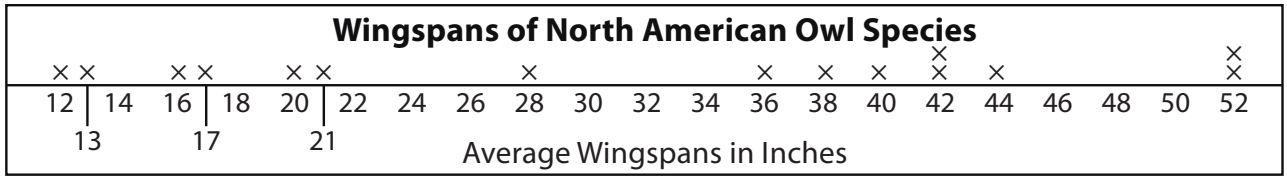
4 What is the difference between the shortest and longest wingspans? (range) Show your work.

5 If there were 5 zebra swallowtail butterflies lined up side-by-side on a branch with their wings spread out, how much space would they take up? Show your thinking using numbers, labeled sketches, or words.

NAME | DATE

Median, Mode & Range

Use the line plot to answer the questions below. Remember to label your answers with the unit.



1 What is the minimum wingspan?

2 What is the maximum wingspan?

3 What is the range of the wingspans of these owls? Please show your work.

4 What is the median wingspan for these owls?

5 What is the mode for this set of data?

6 Circle the length you think best describes the wingspan of a typical owl in North America and explain your choice.

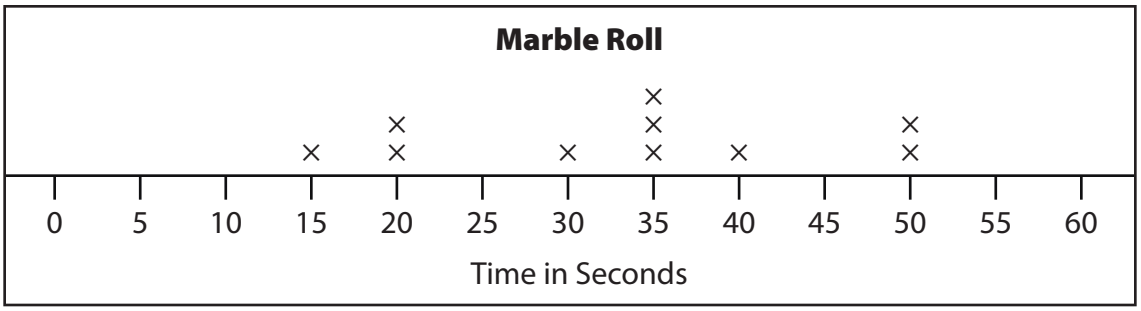
17 inches 36 inches 42 inches 52 inches

NAME | DATE

Marble Roll

Carter and Pedro made an obstacle course for a marble roll. They dropped a marble into the course 10 times and recorded how long the marble took to go through each time.

1 The line plot below shows how long it took the marble to go through the obstacle course each time.



a What is the minimum time?

b What is the maximum time?

c What is the range?

d What is the median?

e What does the median tell you about this set of data?

f What is the mode?

g What does the mode tell you about this set of data?

NAME | DATE

Unit 4 Review 1 page 1 of 2

1 Solve the addition problems below. Use the standard algorithm. The first one is done for you.

1 1 459 + 144 603	387 + 414	609 + 734	1,589 + 3,437

2 Solve the subtraction problems below. Use the standard algorithm. The first one is done for you.

7 12 ~~8~~~~3~~3 – 547 286	745 – 548	905 – 237	3,581 – 1,346

3 Complete each equation by writing a number in base ten numerals.

ex 17,508 = 10,000 + 7,000 + 500 + 8

a _____ = 20,000 + 400 + 50 + 6

b _____ = 30,000 + 2,000 + 100 + 10 + 2

c _____ = 7,000 + 40 + 6

d _____ = 90,000 + 6,000 + 30 + 5

e _____ = 60,000 + 3,000 + 7

f _____ = 10,000 + 3,000 + 800 + 50 + 5

g _____ = 50,000 + 300 + 5

4 Fill in the missing number in each equation.

ex 40,000 + 6,000 + 50 + 8 = 46,058

a 41,092 = 40,000 + _____ + 90 + 2

b 50,000 + 1,000 + _____ + 50 + 4 = 51,354

c 17,035 = 10,000 + _____ + 30 + 5

d 96,035 = 90,000 + 6,000 + _____ + 5

e 20,000 + _____ + 50 + 6 = 20,456

f 2,000 + 500 + _____ + 7 = 2,567

g 20,408 = 20,000 + _____ +8

(continued on next page)

NAME | DATE

Unit 4 Review 1 page 2 of 2

Solve the problems below. Use the standard algorithms for addition and subtraction. Show all your work.

5 In December, the cafeteria served 972 breakfast sandwiches. During the first week in January, they served 486 breakfast sandwiches. During the second week of January they served 538 breakfast sandwiches. How many more breakfast sandwiches did they serve serve in the first two weeks of January than during the whole month of December?

6 There were 6,742 bags of potato chips stored in the cafeteria. They served 781 of them at lunch and 89 more of them as snacks for the students in after-care. How many bags of potato chips are left?

7 At the basketball game last night, the home team was losing by 48 points at halftime, so fans started to leave. There were 45,862 people at the game when it started and 17,946 left at halftime. Then another 13,892 people left before the last quarter. How many people were left by the end of the game?

NAME | DATE

Unit 4 Review 2 page 1 of 2

The table below shows the populations of Austin, Chicago, New York City, Philadelphia, and San Francisco in the year 2010.

Population in the year 2010	
City Name	**Population**
Austin	790,390
Chicago	2,695,598
New York City	8,175,133
Philadelphia	1,526,006
San Francisco	805,235

1 Use the symbol >, =, or < to compare the populations of New York City and Philadelphia.

2 Write the population of Chicago in words.

3 The city of Denver, Colorado, had a population of six hundred thousand, one hundred fifty-eight in the year 2010. Write the population of Denver in numbers.

4 Seattle had a population of 608,660 in the year 2010. Round Seattle's population to the nearest:

a ten: _____

b hundred: _____

c thousand: _____

d Fill in the bubble to show what 608,660 would be rounded to the nearest ten thousand.

- ◯ 600,000
- ◯ 610,000
- ◯ 600,900

(continued on next page)

NAME | DATE

Unit 4 Review 2 page 2 of 2

5 How many hundreds are in 1,000? _____

6 How many hundreds are in 7,000? _____

7 How many hundreds are in 10,000? _____

8 How many thousands are in 38,000? _____

9 How many ten thousands are in 200,000? _____

10 How many hundred thousands are in 5,000,000? _____

11 Fill in the blank with the correct relational symbol: <, > or =.

a 18 km _____ 20,000 meters

b 1700 grams _____ 17 kg

c $13\frac{1}{2}$ liters _____ 13,500 milliliters

12 During his practice this month, Jeff ran one 10K in 1:01:49 and another in 57: 53. How much faster was his second 10K practice? Show all your work. (Hint: Use an open number line to model and solve this problem.)

13 Alex bought a 6-pack of sports drink bottles that each had a volume of 350 ml.

a If Alex drank 3 of them, how many milliliters did she drink? Show your work.

Answer: _____ milliliters

b How many more milliliters would Alex need to drink to have 2 liters? Show your work.

Answer: _____ milliliters

Answer Keys

NAME | DATE

Butterfly Wingspans

Use the table to answer the questions below.

Butterfly wingspans	
Butterfly	**Wingspan**
American Copper Butterfly	$1\frac{1}{4}$ inch
Blue Morpho Butterfly	6 inches
Eastern Tiger Swallowtail Butterfly	$4\frac{1}{2}$ inches
Monarch Butterfly	$3\frac{3}{4}$ inches
Queen Alexandra's Birdwing Butterfly	11 inches
Zebra Swallowtail Butterfly	$2\frac{1}{2}$ inches

1 What do you notice about the data in the table? Write at least two observations.

Observations will vary.

- **The American Copper butterfly has the shortest wing span.**
- **The Zebra Swallowtails wing span is twice as much as the wingspan of the American Copper.**

2 What is the shortest (minimum) wingspan? **1 ¼ in.**

3 What is the longest (maximum) wingspan? **11 in.**

4 What is the difference between the shortest and longest wingspans? (range) Show your work.

9 ¾ inches; work will vary.

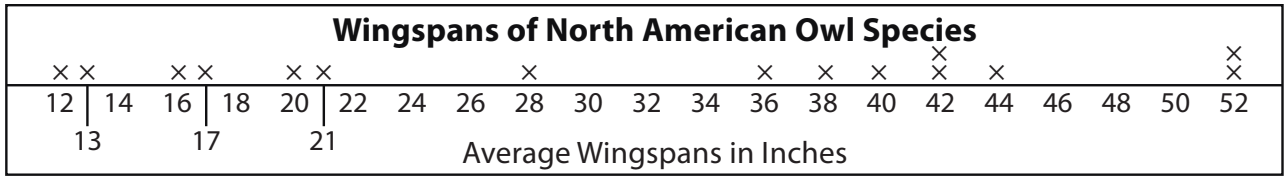
5 If there were 5 zebra swallowtail butterflies lined up side-by-side on a branch with their wings spread out, how much space would they take up? Show your thinking using numbers, labeled sketches, or words.

12 ½ inches; work will vary.

NAME | DATE

Median, Mode & Range

Use the line plot to answer the questions below. Remember to label your answers with the unit.



1 What is the minimum wingspan?

12 inches

2 What is the maximum wingspan?

52 inches

3 What is the range of the wingspans of these owls? Please show your work.

40 inches; work will vary.

4 What is the median wingspan for these owls?

36 inches

5 What is the mode for this set of data?

There are 2 modes - 42 inches and 52 inches.

6 Circle the length you think best describes the wingspan of a typical owl in North America and explain your choice.

17 inches 36 inches 42 inches 52 inches

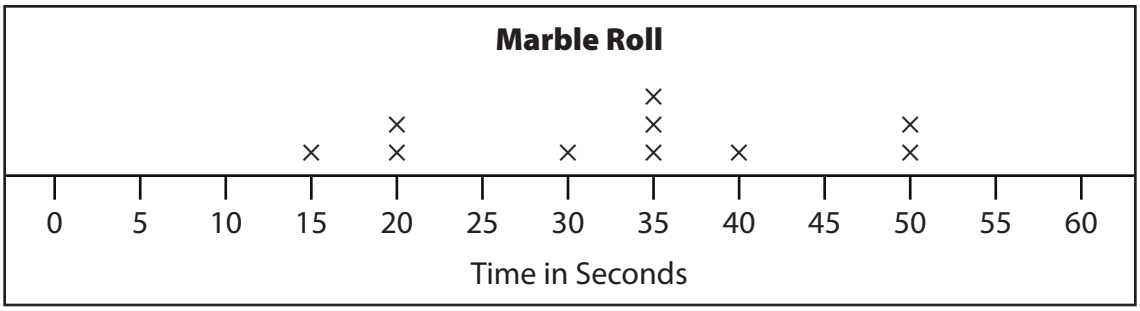
Responses will vary.

NAME | DATE

Marble Roll

Carter and Pedro made an obstacle course for a marble roll. They dropped a marble into the course 10 times and recorded how long the marble took to go through each time.

1 The line plot below shows how long it took the marble to go through the obstacle course each time.



a What is the minimum time?

15 seconds

b What is the maximum time?

50 seconds

c What is the range?

35 seconds

d What is the median?

35 seconds

e What does the median tell you about this set of data?

Responses will vary. Example: The median is the number in the middle of the data set.

f What is the mode?

35 seconds

g What does the mode tell you about this set of data?

Responses will vary. Example: The mode is the number that shows up the most in a data set.

NAME | DATE

Unit 4 Review 1 page 1 of 2

1 Solve the addition problems below. Use the standard algorithm. The first one is done for you.

1 1 459 + 144 603	387 + 414 **801**	609 + 734 **1,343**	1,589 + 3,437 **5,026**

2 Solve the subtraction problems below. Use the standard algorithm. The first one is done for you.

7 12 ~~8~~~~3~~3 – 547 286	745 – 548 **197**	905 – 237 **668**	3,581 – 1,346 **2,235**

3 Complete each equation by writing a number in base ten numerals.

ex 17,508 = 10,000 + 7,000 + 500 + 8

a **20,456** = 20,000 + 400 + 50 + 6

b **32,112** = 30,000 + 2,000 + 100 + 10 + 2

c **7,046** = 7,000 + 40 + 6

d **96,035** = 90,000 + 6,000 + 30 + 5

e **63,007** = 60,000 + 3,000 + 7

f **13,855** = 10,000 + 3,000 + 800 + 50 + 5

g **50,305** = 50,000 + 300 + 5

4 Fill in the missing number in each equation.

ex 40,000 + 6,000 + 50 + 8 = 46,058

a 41,092 = 40,000 + **1,000** + 90 + 2

b 50,000 + 1,000 + **300** + 50 + 4 = 51,354

c 17,035 = 10,000 + **7,000** + 30 + 5

d 96,035 = 90,000 + 6,000 + **30** + 5

e 20,000 + **400** + 50 + 6 = 20,456

f 2,000 + 500 + **60** + 7 = 2,567

g 20,408 = 20,000 + **400** + 8

(continued on next page)

NAME | DATE

Unit 4 Review 1 page 2 of 2

Solve the problems below. Use the standard algorithms for addition and subtraction. Show all your work.

5 In December, the cafeteria served 972 breakfast sandwiches. During the first week in January, they served 486 breakfast sandwiches. During the second week of January they served 538 breakfast sandwiches. How many more breakfast sandwiches did they serve serve in the first two weeks of January than during the whole month of December?

```
  486      1,024
+ 538    - 972
1,024        52
```

52 more sandwiches

6 There were 6,742 bags of potato chips stored in the cafeteria. They served 781 of them at lunch and 89 more of them as snacks for the students in after-care. How many bags of potato chips are left?

```
  781      6,742
+  89    - 870
  870      5,872
```

5,872 bags

7 At the basketball game last night, the home team was losing by 48 points at halftime, so fans started to leave. There were 45,862 people at the game when it started and 17,946 left at halftime. Then another 13,892 people left before the last quarter. How many people were left by the end of the game?

```
 45,862      27,916
- 17,946    - 13,892
 27,916      14,024
```

14,024 people were left.

NAME | DATE

Unit 4 Review 2 page 1 of 2

The table below shows the populations of Austin, Chicago, New York City, Philadelphia, and San Francisco in the year 2010.

Population in the year 2010	
City Name	**Population**
Austin	790,390
Chicago	2,695,598
New York City	8,175,133
Philadelphia	1,526,006
San Francisco	805,235

1 Use the symbol >, =, or < to compare the populations of New York City and Philadelphia.

8,175,133 > 1,526,006

2 Write the population of Chicago in words.

Two million, six hundred ninety-five thousand, five hundred ninety-eight

3 The city of Denver, Colorado, had a population of six hundred thousand, one hundred fifty-eight in the year 2010. Write the population of Denver in numbers.

600,158

4 Seattle had a population of 608,660 in the year 2010. Round Seattle's population to the nearest:

a ten: **608,660**

b hundred: **608,700**

c thousand: **609,000**

d Fill in the bubble to show what 608,660 would be rounded to the nearest ten thousand.

- ○ 600,000
- ● 610,000
- ○ 600,900

(continued on next page)

NAME | DATE

Unit 4 Review 2 page 2 of 2

5 How many hundreds are in 1,000? 10

6 How many hundreds are in 7,000? 70

7 How many hundreds are in 10,000? 100

8 How many thousands are in 38,000? 38

9 How many ten thousands are in 200,000? 20

10 How many hundred thousands are in 5,000,000? 50

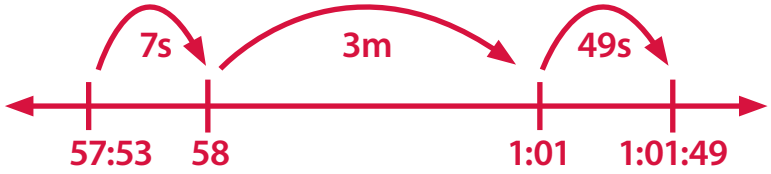
11 Fill in the blank with the correct relational symbol: <, > or =.

a 18 km < 20,000 meters

b 1700 grams < 17 kg

c $13\frac{1}{2}$ liters = 13,500 milliliters

12 During his practice this month, Jeff ran one 10K in 1:01:49 and another in 57: 53. How much faster was his second 10K practice? Show all your work. (Hint: Use an open number line to model and solve this problem.)



3 minutes and 56 seconds faster

13 Alex bought a 6-pack of sports drink bottles that each had a volume of 350 ml.

a If Alex drank 3 of them, how many milliliters did she drink? Show your work.

Answer: 1,050 milliliters

b How many more milliliters would Alex need to drink to have 2 liters? Show your work.

Answer: 950 milliliters