TEKSING TOWARD STAAR

MATHEMATICS®

Grade 5 Student Book

Six Weeks 1

Lesson 2

Student Activity 1

Work with a partner to complete Student Activity 1.

PROBLEM 1: Use a place-value chart to compare 0.238 and 0.24.

Ones	.	Tenths	Hundredths	Thousandths

Remember: Zeros can be placed at the end of a decimal without changing its value.

- Start at the _____. Look at the digits in the _____ place.

  Both numbers have a _____ in the ones place.

- Look at the digits in the _____ place.

  Both numbers have a _____ in the tenths place.

- Look at the digits in the _____ place.

Since ___ > ___, then _____ > _____ and _____ < _____.

PROBLEM 2: Use a place-value chart to compare 2.345 and 2.327.

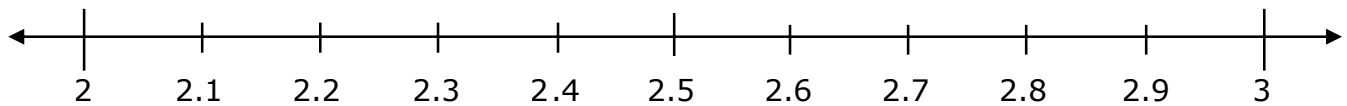
Ones	.	Tenths	Hundredths	Thousandths

- Compare the decimals starting at the first digit on the _____.
- First, look in the _____ place. Both decimals have a ____ in the ones place.
- Next, look in the _____ place. Both decimals have a ____ in the tenths place.
- Now, move to the _____ place. One number has a ____ in the hundredths place and the other number has a ____ in the hundredths place.

Since ___ > ___, then _____ > _____ and _____ < _____.

PROBLEM 3: Use a number line to compare 2.345 and 2.367.

- Place a point at the location of 2.345 and 2.367. Label each point with the number it represents.



- Both numbers are greater than _____ and less than _____.
- The number _____ comes first on the number line between 2.3 and _____ because _____ __ _____
- The number _____ is a little closer to 2.3 than _____.
- The number _____ is a little closer to _____ than 2.3.

So, _____ > _____ and _____ < _____.

PROBLEM 4: Use a place-value chart to compare 0.672 and 0.68.

Remember: Zeros can be placed at the end of a decimal without changing its value.

Ones	.	Tenths	Hundredths	Thousandths

- Start at the _____. Look at the digits in the _____ place.

  Both numbers have a _____ in the ones place.
- Look at the digits in the _____ place.

  Both numbers have a _____ in the tenths place.
- Look at the digits in the _____ place.

Since ___ > ___, then _____ > _____ and _____ < _____.

PROBLEM 5: Use what you know about place-value to compare 8.637 and 8.673.

Step 1 Line up the decimal points.	**Step 2** Compare the ones.	**Step 3** Compare the tenths.	**Step 4** Compare the hundredths.
__._____ ↓ __._____	__._____ ↓ __._____ ___ = ___	__._____ ↓ __._____ ___ = ___	__._____ ↓ __._____ ___ __ ___

Since ___ __ ___, then _____ > _____ and _____ < _____.

Explain how you know your answers are correct.

PROBLEM 6: Use a place-value chart to compare 3.468 and 3.486.

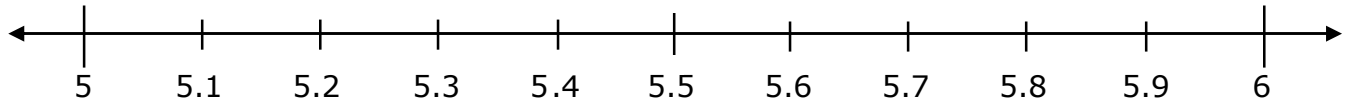
Ones	.	Tenths	Hundredths	Thousandths

- Compare the decimals starting at the first digit on the _____.
- First, look in the _____ place. Both decimals have a ____ in the ones place.
- Next, look in the _____ place. Both decimals have a ____ in the tenths place.
- Now, move to the _____ place. One number has a ____ in the hundredths place and the other number has a ____ in the hundredths place

Since ___ > ___, then _____ > _____ and _____ < _____.

PROBLEM 7: Use a number line to compare 5.432 and 5.474.

- Place a point at the location of 5.432 and 5.474. Label each point with the number it represents.



- Both numbers are greater than _____ and less than _____.
- The number _____ comes first on the number line between 5.4 and _____ because _____ __ _____
- The number _____ is closer to 5.4 than _____.
- The number _____ is closer to _____ than 5.4

So, _____ > _____ and _____ < _____.

PROBLEM 8: Use what you know about place-value to compare 4.44 and 4.044.

Step 1 Line up the decimal points.	**Step 2** Compare the ones.	**Step 3** Compare the tenths.	**Step 4** Compare the hundredths.
__._____ ↓ __._____	__._____ ↓ __._____ ___ = ___	__._____ ↓ __._____ ___ = ___	__._____ ↓ __._____ ___ __ ___

Since ___ __ ___, then _____ > _____ and _____ < _____.

NAME_____ DATE_____ SCORE ___/5

5.2B Skills and Concepts Homework 1

The chart shows the number of meters five miniature cars traveled in a distance contest. Use the chart to complete Problem 1 and Problem 2.

Miniature Car Distance Contest

Car	Meters Traveled
Chevy	4.407
Ford	4.397
Toyota	4.419
Mazda	4.346
Dodge	4.908

1. Use a place-value chart to compare the distances the Ford and the Mazda traveled.

Ones	.	Tenths	Hundredths	Thousandths

_____ > _____ and _____ < _____.

Explain how your know your answers are correct.

2. Use a place-value chart to compare the distances the Chevy and the Toyota traveled.

Ones	.	Tenths	Hundredths	Thousandths

_____ > _____ and _____ < _____.

Explain how your know your answers are correct.

3. Teri has these numbers cards.

She is making a number with the greatest possible value using all the number cards, placing the 6 card in the hundredths place, and placing the 3 card in the thousandths place.

What number will Teri make? _____

Explain how you know your answer is correct.

Next, Teri is using the same five number cards to make a number with the least possible value using all the number cards, placing the 6 card in the thousandths place, and placing the 4 card in the tens place.

What number will Teri make? _____
Explain how you know your answer is correct.

Cheri cut crepe paper streamers for her sister's surprise birthday party. The yellow streamer is 5.861 meters long, the red streamer is 5.453 meters long, the blue streamer is 5.809 meters long, and the green streamer is 5.464 meters long. Use this information to complete Problem 4 and Problem 5.

4. Use a number line to compare the lengths of the yellow and blue streamers.
   - Place a point at the location of the length of each streamer. Label each point with the number it represents.

_____ > _____ and _____ < _____.

5. Use what you know about place-value to compare the lengths of the red streamer and green streamer.

Step 1 Line up the decimal points.	**Step 2** Compare the ones.	**Step 3** Compare the tenths.	**Step 4** Compare the hundredths.
__.____ ↓ __.____	__.____ ↓ __.____ ___ = ___	__.____ ↓ __.____ ___ = ___	__.____ ↓ __.____ ___ __ ___

Since ___ __ ___, then _____ > _____ and _____ < _____.

Explain how you know your answers are correct.

Student Activity 2

Work with a partner to complete Student Activity 2.

PROBLEM 1: Use a place-value chart to order 2.29, 4.528, 4.7 and 2.2.

Remember: Zeros can be written at the end of a decimal without changing its value.

Ones	.	Tenths	Hundredths	Thousandths

• First look at the digits in the ones place.

The numbers _____ and _____ both have a _____ in the ones place. They are the two greatest numbers.

For these two numbers, compare the digits in the tenths place.

Since _____ __ _____ , the number _____ __ _____ .

The greatest number is _____; it should be written first.

The next-greatest number is _____; it should be written next.

• Look at the remaining two numbers. Compare the digits.

Both numbers have a _____ in the ones place and the tenths place. Look at the hundredths place.

Since _____ __ _____ , the number _____ __ _____ .

The least number is _____; it should be written last.

The numbers in order are:

_____ > _____ > _____ > _____

and also

_____ < _____ < _____ < _____.

PROBLEM 2: Use a place-value chart to order 5.703, 5.62, 0.981 and 4.63.

Remember: Zeros can be written at the end of a decimal without changing its value.

Ones	.	Tenths	Hundredths	Thousandths

- Start at the _____. Two of the numbers have a 5 in the _____ place and one of the numbers has a 4 in the _____ place.

  These three numbers will be _____ than the number that has a _____ in the ones place.

  The least number is _____.

- Two of the numbers left have a _____ in the ones place and one of the numbers has a _____ in the ones place.

  The number with a _____ in the ones place is less than the numbers with a _____ in the ones place.

- Decide which of the two numbers with a 5 in the ones place is less. Look at the next place value, the _____ place.

  One of the numbers with a 5 in the ones place has a _____ in the tenths place.

  The other number with a 5 in the ones place has a _____ in the tenths place.

  Since _____ is less than _____, the number _____ is less than the number _____.

The numbers in order are:

_____ < _____ < _____ < _____

and also

_____ > _____ > _____ > _____.

PROBLEM 3: Use a number line to order 5.493, 5.417, 5.476 and 5.424.

- Place a point at the location of 5.493, 5.417, 5.476 and 5.424. Label each point with the number it represents.

- All four numbers are greater than _____ and less than _____.
- The numbers are the same in the _____ and _____ places.
- Look at the hundredths places. 5.4__ < 5.4__ < 5.4__ < 5.4__, therefore 5.4___ comes first on the number line between 5.__ and 5.___.
  5.417 is closer to 5.4 than 5.4____.
- 5.4____ comes next on the number line between 5.4 and 5.___.
  5.424 is a little closer to 5.4__ than 5.4__.

• 5.4____ comes next on the number line between 5.4__ and 5.4__.

5.476 is closer to 5.4__ than 5.4__.

• 5.4____ comes next on the number line between 5.4__ and 5.__.

5.493 is closer to 5.4__ than 5.__.

So, 5.____ > 5.____ > 5.____ > 5.____ and 5.____ < 5.____ < 5.____ < 5.____.

PROBLEM 4: Use a place-value chart to order 4.03, 5.639, 5.7 and 4.09.

Remember: Zeros can be written at the end of a decimal without changing its value.

Ones	.	Tenths	Hundredths	Thousandths

• First look at the digits in the ones place.

The numbers _____ and _____ both have a _____ in the ones place. They are the two greatest numbers.

For these two numbers, compare the digits in the tenths place.

Since _____ __ _____ , the number _____ __ _____ .

The greatest number is _____; it should be written first.

The next-greatest number is _____; it should be written next.

• Look at the remaining two numbers. Compare the digits.

Both numbers have a _____ in the ones place and a _____ the tenths place.

Look at the _____ place.

Since _____ __ _____ , the number _____ __ _____ .

The least number is _____; it should be written last.

The numbers in order are:

_____ > _____ > _____ > _____

and also

_____ < _____ < _____ < _____.

PROBLEM 5: Use what you know about place-value to order 6.14, 6.685, 6.529 and 6.32.

Step 1 Line up the decimal points.	**Step 2** Compare the ones.	**Step 3** Compare the tenths.	**Step 4** Continue to compare the tenths.
__.____ ↓ __.____ ↓ __.____ ↓ __.____	__.____ ↓ __.____ ↓ __.____ ↓ __.____ __ = __ = __ =__	__.____ ↓ __.____ ↓ __.____ ↓ __.____ 6 > __ 6 > __ 6 > __ So, __.____ is the greatest number.	__.____ ↓ __.____ ↓ __.____ 5 > __ and __, so __.____ is the next greatest number. __ > __, so __.____ is the next greatest number, and __.___ is the least number.

So, 6._____ > 6._____> 6._____ > 6._____ and 6._____ < 6._____ < 6._____ < 6._____.

PROBLEM 6: Use a place-value chart to order 4.602, 3.62, 0.706 and 4.59.

Remember: Zeros can be written at the end of a decimal without changing its value.

Ones	.	Tenths	Hundredths	Thousandths

- Start at the _____. Three of the numbers have a digit greater than 0 in the _____ place.

  These numbers will be _____ than the number that has a 0 in the ones place.

  The least number is _____.
- Two of the numbers left have a _____ in the ones place and one of the numbers has a _____ in the ones place.

  The number with a _____ in the ones place is less than the numbers with a _____ in the ones place.

- Decide which of the two numbers with a 4 in the ones place is less. Look at the next place value, the _____ place.

  One of the numbers with a 4 in the ones place has a _____ in the tenths place. The other number with a 4 in the ones place has a _____ in the tenths place. Since _____ is less than _____, the number _____ is less than the number _____.

The numbers in order are:

_____ < _____ < _____ < _____

and also

_____ > _____ > _____ > _____.

NAME_____ DATE_____ SCORE ___/5

5.2B Skills and Concepts Homework 2

1. Cherise, Tom, Kerri and Trace are playing a math game. A player scores a point when holding the card with the greatest value. They each draw a card for the first round. Cherise's card is 0.543, Tom's card is 0.352, Kerri's card is 0.713, and Trace's card is 0.709.

   List the order of the numbers on the cards from least to greatest number.

   _____ < _____ < _____ < _____

   Which player will score the point for the first round? _____
   Explain why your answer is correct.

2. The chart shows the number of meters four miniature cars traveled in a distance contest.

Miniature Car Distance Contest

Car	Meters Traveled
Chevy	4.407
Ford	4.397
Toyota	4.419
Mazda	4.346
Dodge	4.908

   List the order of the distances traveled from greatest to least number.

   _____ > _____ > _____ > _____ > _____

   Which car traveled farther than the Mazda, but not as far as the Chevy or the Toyota? _____ Explain why your answer is correct.

3. At a track meet, Amie jumped 4.07 meters, Sue jumped 4.7 meters, Yvette jumped 4.77 meters and Terri jumped 4.17 meters in the long jump contest. The results were posted in order from longest to shortest jump.

   List the order of the jumps from longest to shortest.

   _____ > _____ > _____ > _____ > _____

   Which person had a shorter jump than Yvette, but a longer jump than Terri?

   _____ Explain why your answer is correct.

4. Some of the winning times for the women's Olympic swimming 200 meter freestyle are listed in the table below.

Women's 200 Meter Freestyle	
Year	Time (minutes and seconds)
1996	1 min 59.01 sec
2000	1 min 59.67 sec
2004	1 min 58.03 sec
2008	1 min 54.82 sec
2012	1 min 53.61 sec

According to this table, in which year was the least amount of time recorded?

_____ Explain why your answer is correct.

According to this table, in which year was the greatest amount of time recorded?

_____ Explain why your answer is correct.

4. The table lists some of the mountains in the United States that are greater than 2 miles high.

United States Mountains	
Mountain	Height (in miles)
Wheeler Mountain	2.493
Boundary Mountain	2.488
Grand Teton Mountain	2.607
Cloud Mountain	2.495

Compare the heights of Boundary Mountain and Cloud Mountain.

_____ mi > _____ mi and _____ mi < _____ mi

So, the height of _____ Mountain is greater than the height of

_____ Mountain.

Compare the heights of Cloud Mountain and Wheeler Mountain.

_____ mi > _____ mi and _____ mi < _____ mi

So, the height of _____ Mountain is less than the height of

_____ Mountain.

Lesson 4

Student Activity 1

Work with a partner to complete Student Activity 1.

PROBLEM 1: Krista ordered 15 cases of cookies to sell for her scout troop. Each case had 244 cookies in it. How many cookies did she order in all?

- Since all the cases have the same _____ of cookies, the operation of _____ can be used to find how many cookies she ordered in all.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

Krista ordered _____ cookies to sell for her scout troop.
Now, reverse the products to check your multiplication in the space above.
Decide if reversing the factors to check your multiplication gave you the same product as your original answer for Problem 1.

My original product for Problem 1 was _____ x _____ = _____.

This is _____ the product when I reversed the factors to check my multiplication. So, my original product _____ correct.
("the same as" or "different from") ("is" or "is not")

NOTE: If reversing the factors did not give you the same product as your original product for Problem 1, go back and rework the problem on the back of this page, then check your answer again using reverse factors.

PROBLEM 2: A children's hospital collected money to buy toys and books for the children's play room. A total of 81 people donated $14 each. What is the total amount of these donations?

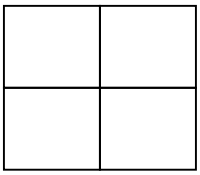
- Since all the donations are for the same _____, the operation of _____ can be used to find the total amount of the donations.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

The total amount of donations is _____.
Use the lattice method to check your answer to **Problem 2**.

- **Step 1: Draw a grid.**

  Write one factor on top.

  Write the other factor on the right.

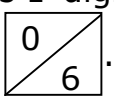


- **Step 2: In each square, write a product.**

  Multiply the digit at the top of the column by the digit to the right of the row.

  Note: Use a diagonal line to separate the digits in each product.

  If the product is 1-digit, write the product as 0__.

  Write 2 x 3 as 

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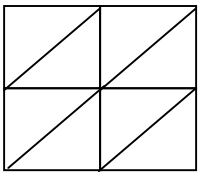
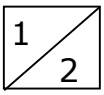


  If the product is 2-digits, write the tens digit in the top left and write the ones digit in the bottom right.

  Write 4 x 3 as 

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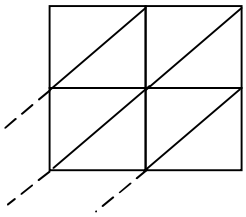
- **Step 3: Add along the diagonals.**

  Begin at the lower right.

  For 2-digit sums, add the tens digit to the digits in the next diagonal.



- **Step 4: Read the product.**

  Begin reading the product at the top left and end at the bottom right.

_____ x _____ = _____

Decide if the lattice method for checking multiplication gave you the same product as your original product for Problem 2.

My original product for Problem 2 was _____ x _____ = _____.

This is _____ the product when using the lattice method to
("the same as" or "different from")
check my multiplication. So, my original product _____ correct.
("is" or "is not")

NOTE: If the lattice method did not give you the same product as your original product for Problem 2, go back and rework the problem on the back of this page, then check your answer on the back of this page using reverse factors.

PROBLEM 3: An irrigation system in an orange orchard can spray 845 gallons of water every hour. If the system operated for a total of 25 hours last week, how many gallons did it spray?

- Since the irrigation system sprays the same _____ of water each _____,

  the operation of _____can be used to find how many gallons

  the system sprayed in 25 _____ last week.

- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

The irrigation system sprayed _____ gallons in _____ hours last week.
Reverse the products to check your multiplication in the space above.

PROBLEM 4: Michael has 37 baseball cards in his collection. Tino has 14 times as many baseball cards in his collection. How many cards are in Tino's collection?

- The operation of _____ can be used to find how many cards are in Tino's collection.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

Tino has _____ baseball cards in his collection.
Reverse the products to check your multiplication in the space above.

PROBLEM 5: A special on a flight to Harlingen costs $106. There were 98 tickets sold for the 12:30 p.m. flight on Friday. What is the total amount collected for these tickets?

- Since all the tickets are the same _____, the operation of _____ can be used to find the total _____ collected for these tickets.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below.

The total amount collected for _____ tickets to Harlingen on Friday is $_____.
Reverse the products to check your multiplication in the space above.

PROBLEM 6: An artist in New Orleans created 13 tile mosaics each day for 134 days. What is the total number of tile mosaics he created during the 134 days?

- Since the artist created the same _____ of tile mosaics each _____, the operation of _____ can be used to find the total number of tile mosaics he created during the 134 days.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

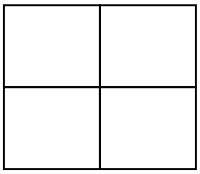
The artist created _____ tile mosaics in _____ days.
Reverse the products to check your multiplication in the space above.

PROBLEM 7: Ms. Romano. Diaz bought 64 bottles of pancake syrup for her café. Each bottle contains 78 ounces of syrup. How many ounces of syrup did Ms. Romano buy?

- Since all the bottles have the same _____ of syrup, the operation of _____ can be used to find how many ounces of syrup Ms. Romano bought.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

Ms. Romano bought _____ ounces of pancake syrup for her café.
Use the lattice method to check your answer to **Problem 2**.

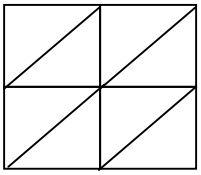
- **Step 1: Draw a grid.**
  Write one factor on top.
  Write the other factor on the right.



- **Step 2: In each square, write a product.**
  Multiply the digit at the top of the column by the digit to the right of the row.

Note: Use a diagonal line to separate the digits in each product.
If the product is 1-digit, write the product as 0__.

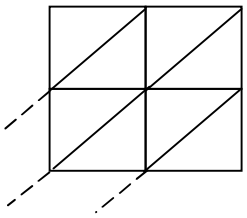
Write 2 x 3 as $\begin{array}{|c|}\hline 0 \diagup 6 \\ \hline \end{array}$.



If the product is 2-digits, write the tens digit in the top left and write the ones digit in the bottom right.

Write 4 x 3 as $\begin{array}{|c|}\hline 1 \diagup 2 \\ \hline \end{array}$.

- **Step 3: Add along the diagonals.**
  Begin at the lower right.
  For 2-digit sums, add the tens digit to the digits in the next diagonal.



- **Step 4: Read the product.**
  Begin reading the product at the top left and end at the bottom right.

_____ x _____ = _____

Decide if the lattice method for checking multiplication gave you the same product as your original product for Problem 7.

My original product for Problem 7 was _____ x _____ = _____.

This is _____ the product when using the lattice method to check my multiplication. So, my original product _____ correct.
("the same as" or "different from") ("is" or "is not")

NOTE: If the lattice method did not give you the same product as your original product for Problem 7, go back and rework the problem on the back of this page, then check your answer on the back of this page using reverse factors.

PROBLEM 8: The Sullivan's family SUV travels an average of 405 miles on each tank of gasoline. At this rate, how many miles did the family travel if they used 9 tanks of gasoline during their winter vacation?

- Since the Sullivan can travel an average of _____ miles on each tank of gas, the operation of _____ can be used to find how many miles they traveled.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

The Sullivan family traveled _____ miles on the winter vacation.
Reverse the factors to check your multiplication in the space above.

PROBLEM 9: A group of volunteers painted the lockers in the hallway at Garner Elementary. The group divided the lockers into 15 different sections and worked on 1 section at a time. Each section took 35 hours to paint. How many hours did it take to paint all the lockers in the school?

- Since it took the same _____ of _____ to paint each section, the operation of _____ can be used to find how many _____ it took to paint all the lockers in the school.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

The volunteers took _____ hours to paint _____ sections of lockers.
Reverse the factors to check your multiplication in the space above.

PROBLEM 10: The Student Council bought 137 boxes of microwave popcorn for the concession stand at the football field. Each box contains 12 packages of popcorn. How many packages of popcorn did they buy?

- Since the Student Council bought boxes of popcorn with the same _____ of packages of popcorn in each box, the operation of _____ can be used to find how many packages they bought.
- The expression _____ x _____ can be used to solve this problem. Show your work in the space below. Label the factors and the product.

The Student Council bought _____ packages of popcorn.
Reverse the factors to check your multiplication in the space above.

NAME_____ DATE_____ SCORE ___/5

5.3B/5.3A Skills and Concepts Homework 1

1. An irrigation system in a cotton field can spray 785 gallons of water every hour. If the system operated for a total of 24 hours last week, how many gallons did it spray? Show your work and use reverse factors to check your multiplication.

2. Joel earns $15 for mowing 1 lawn. He mowed 17 lawns each month during the last 4 months. What is the total amount of money he made during the 4 months? Show your work and use reverse factors to check your multiplication.

3. Ms. Janis teaches math to 254 students each day. She grades one paper for each student each day. If Ms. Janis teaches for 25 days this month, how many papers does she grade? Show your work and use reverse factors to check your multiplication.

4. A pizza parlor charges $17 for a large pizza. If they sell 39 pizzas on Saturday, how much money will they collect, not including tax? Show your work and use reverse factors to check your multiplication.

5. A Chinese restaurant ordered 15 cases of fortune cookies. Each case contains 288 fortune cookies. How many cookies did the restaurant order? Show your work and use reverse factors to check your multiplication.

Student Activity 2

Work with a partner to complete Student Activity 2.

PROBLEM 3: Yolanda plays CDs while she does her homework. The CD lasts 26 minutes. Estimate the total number of minutes Yolanda worked on homework last month if she played her CD all the way through 33 times.

- The CD lasts _____ minutes.

  Round _____ to _____.
- Yolanda played the CD _____ times last month while she worked on her homework.

  Round _____ to _____.
- Since the CD lasts the same _____ of _____ each time it is played, the operation of _____ can be used to solve the problem.
- An estimated number of minutes Yolanda worked on homework last month is:

  _____ x _____ = _____ .

Yolanda worked about _____ minutes on homework last month.

- Reverse the factors to check your multiplication. Show your work on notebook paper.

PROBLEM 2: A Texas high school in the Valley is sending 27 of is Glee Club members and two directors to a weekend competition in Austin. The cost per person for the trip is $588. Estimate the total amount of money the school will pay for the trip to the nearest $100.

- The cost for the trip is $_____ per person.

  Round _____ to _____.
- _____ Glee Club members and _____ directors are going on the trip.

  Round _____ to _____.
- Since the cost of the trip is the same _____ for _____, the operation of _____ can be used to estimate the total amount.
- An estimated total amount of money the school will pay for the trip, to the nearest $100 is:

  _____ x _____ = _____ .

The school will pay about $_____ for ____ Glee Club members and __ directors for the trip to Austin for the competition.

- Reverse the factors to check your multiplication. Show your work.

PROBLEM 3: An airplane traveled a distance of about 328 miles each hour for 16 hours. To the nearest 10, estimate the total distance the airplane traveled during the 16 hours. Show your work.

Explain why this is a good estimate.

Is this estimate an underestimate or an overestimate? _____
Explain why you know your answer is correct.

PROBLEM 4: Estimate the product of 724×39 to the nearest 10. Show your work.

Explain why this is a good estimate.

Is this estimate an underestimate or an overestimate? _____
Explain why you know your answer is correct.

PROBLEM 5: Latrell runs on the treadmill for 32 to 39 minutes every day. To the nearest 10, Estimate the least number of minutes Latrell runs on the treadmill in 30 days. Show your work.

Explain why this is a good estimate.

Is this estimate an underestimate or an overestimate? _____
Explain why you know your answer is correct.

To the nearest 10, Estimate the greatest number of minutes Latrell runs on the treadmill in 30 days. Show your work.

Explain why this is a good estimate.

Is this estimate an underestimate or an overestimate? _____
Explain why you know your answer is correct.

NAME_____ DATE_____ SCORE ___/5

5.3B/5.3A Skills and Concepts Homework 2

1. Hector used blocks to build a scale model of a building. The model is 949 millimeters tall. Each block is 32 millimeters tall. To the nearest ten, estimate the number of blocks Hector used to make the model.
   - Show your work on notebook paper.
   - Explain why this is a good estimate.
   - Is this estimate an underestimate or an overestimate? Explain why you know your answer is correct.

2. There are 687 golfers competing in a tournament. The golf course gives each golfer 12 golf balls with the course logo on them. To the nearest ten, estimate the number of golf balls the course needs to order to make sure they have enough for all the golfers competing in the tournament.
   - Show your work on notebook paper.
   - Explain why this is a good estimate.
   - Is this estimate an underestimate or an overestimate? Explain why you know your answer is correct.

3. There are 982 reference books in one school library in a district. To the nearest 10, about how many reference books are in the district if all 17 schools have about the same number of reference books?
   - Show your work on notebook paper.
   - Explain why this is a good estimate.
   - Is this estimate an underestimate or an overestimate? Explain why you know your answer is correct.

4. Mrs. James is sewing an edging around baby blankets. The distance around each blanket measures approximately 646 centimeters. She is making 19 blankets. About how much edging will she need to finish all of the blankets?
   - Show your work on notebook paper.
   - Explain why this is a good estimate.
   - Is this estimate an underestimate or an overestimate? Explain why you know your answer is correct.

5. Twelve post-office workers each sorted an average of 478 pieces of mail each day during 23 days one month. To the nearest 10, estimate the total number of pieces of mail the 12 workers sorted during the 23 days?
   - Show your work on notebook paper.
   - Explain why this is a good estimate.
   - Is this estimate an underestimate or an overestimate? Explain why you know your answer is correct.

Hands-On Activity 1

MULTIPLICATION MAKES SENSE

Materials: (for each partner) 1 Multiplication Makes Sense Problems page, 1 Creator's Products and Check page, 1 Partner's Products and Check page

Procedure: Work in partner pairs for this activity.

- Work with your partner to brainstorm a list of 5 real-world situations where the operation of multiplication using a **3-digit** and a **2-digit** whole number factor is needed.
- Record the situations and reasons multiplication is needed in this chart.

Multiplication Makes Sense Data Chart

(The situations you record must require use of a 3-digit and a 2-digit whole number factor to solve a problem.)

Real Word Situation	Reason Multiplication is Needed

Part 1

Each partner chooses one of the real-world situations from the Multiplication Makes Sense Data Chart and creates a multiplication problem using factors related to the situation. Write the problem in words on your Multiplication Makes Sense page in the space for Multiplication Problem 1.

- Write an expression that can be used to solve your Multiplication Problem 1.
- Use the expression to find the product for your Multiplication Problem 1. Record the product of the factors in your problem on the top of the Creator's Products page for Multiplication Problem 1. Be sure to show your work. Check your product using the reverse factors method.
- Trade Multiplication Makes Sense pages with your partner.
- Write an expression that can be used to solve your partner's Multiplication Problem 1.
- Use the expression to find the product for your Multiplication Problem 1. Record the product of the factors in the problem on the top of the Partner's Products page for Multiplication Problem 1. Be sure to show your work. Check your product using the reverse factors method.
- Return the Multiplication Makes Sense page to your partner. Discuss factors and products for both of your Multiplication Problem 1 problems.

Part 2

Each partner chooses a different real-world situation from the Multiplication Makes Sense Data Chart and creates a multiplication problem using factors related to the situation. Write the problem in words on your Multiplication Makes Sense page in the space for Multiplication Problem 2.

- Write an expression that can be used to solve your Multiplication Problem 2.
- Use the expression to find the product for your Multiplication Problem 2. Record the product of the factors in your problem on the top of the Creator's Products page for Multiplication Problem 2. Be sure to show your work. Check your product using the reverse factors method.
- Trade Multiplication Makes Sense pages with your partner.
- Write an expression that can be used to solve your partner's Multiplication Problem 2.
- Use the expression to find the product for your Multiplication Problem 2. Record the product of the factors in the problem on the top of the Partner's Products page for Multiplication Problem 2. Be sure to show your work. Check your product using the reverse factors method.
- Return the Multiplication Makes Sense page to your partner. Discuss factors and products for both of your Multiplication Problem 2 problems.

Part 3

Work by yourself to answer these questions.

- What did you think about when you were creating your problems?

- Do your problems use a 3-digit and a 2-digit whole number?

- Can your problems be solved using multiplication?

- How did you solve your partner's problems?

- Do the expressions you wrote match the problems you created?

- Do the expressions you wrote for your partner's problems match the problems your partner created?

- Are the products you found for the problems you created reasonable? _____ How do you know?

- Are the products you found for the problems your partner created reasonable? _____ How do you know?

- Estimate the product to the nearest ten for the Multiplication Problem 1 you created. Show your work below.

  Explain why your estimate is an overestimate or an underestimate.

- Estimate the product to the nearest ten for the Multiplication Problem 2 you created. Show your work below.

  Explain why your estimate is an overestimate or an underestimate.