# Berryhill $4^{\text {th }}$ grade: Student Work Packet 

Students and Parents: We miss you and we hope you are well!
Attached is a 2-week student work packet. These are provided for you to review and practice Math and Reading skills and prepare for $5^{\text {th }}$ grade. These are not graded and will not be returned.

Our daily/weekly expectations are as follows:

|  | Monday | Tuesday | Wednesday | Thursday | Friday |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Math | 2 pages Math <br> packet <br> Use answer keys <br> to check work. | 2 pages Math <br> packet. <br> Use answer keys <br> to check work. | 2 pages Math <br> packet. <br> Use answer keys <br> to check work. | 2 pages Math <br> packet. <br> Use answer keys <br> to check work. | 2 pages Math <br> packet. <br> Use answer <br> keys to check <br> work. |
| Reading | Read weekly story <br> and complete <br> assigned <br> questions <br> Read 45 min. | Read weekly <br> story and <br> complete <br> assigned <br> questions <br> Read 45 min. | Read weekly <br> story and <br> complete <br> assigned <br> questions <br> Read 45 min. | Read weekly <br> story and <br> complete <br> assigned <br> questions <br> Read 45 min. | Read weekly <br> story and <br> complete <br> assigned quiz. <br> Read 45 min. |
| Enrichment | Online practice <br> through Classlink <br> (Moby Max, <br> Freckle, Reflex, <br> Prodigy) | Online practice <br> through Classlink <br> (Moby Max, <br> Freckle, Reflex, <br> Prodigy) | Online practice <br> through Classlink <br> (Moby Max, | Online practice <br> through Classlink <br> (Mreckle, Reflex, <br> Prodigy) | Online practice <br> (hrough <br> Freckle, Reflex, <br> Prodigy) |
| Classlink <br> (Moby Max, <br> Freckle, Reflex, |  |  |  |  |  |
| Prodigy) |  |  |  |  |  |,

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## ELA <br> Week 1

## Tricking Your Memory

During study time, Gina looked at her science notes and shook her head. "How am I going to memorize the order of the planets in the solar system for Friday's quiz? I always get them mixed up."
"Don't ask me. I can't even remember my gym locker combination, and it's only three numbers," Edward complained.
"My older sister said she uses pneumonia devices to help her study," said Raul.
"What's a pneumonia device?" asked Mei.
"Isn't pneumonia a disease? How can that help?" asked Gina.
"I don't know. My sister got a cell phone call and was on it all night, so I never got to ask her," explained Raul.
"I think Raul means mnemonic, not pneumonia," offered Mrs. Jackson, the school librarian. She'd been shelving books nearby and had overheard their conversation. "Mnemonic devices are memory tricks that help you remember information."
"Yeah, but we're only fourth-graders. Not in high school like Raul's sister. Mnemonic devices are probably too hard for kids our age," sighed Edward.

Mrs. Jackson smiled. "Actually, I bet you've been using mnemonics since you were toddlers. Didn't you sing The ABC Song to help you learn the alphabet?"
"The ABC Song is a mnemonic device?" asked Gina, surprised.
Mrs. Jackson nodded. "Mnemonics don't have to be complicated. They can be anything that helps you remember something. Songs, rhymes, catchy phrases. I imagine all of you know this one: Thirty days hath September...April, June and November...All the rest have thirty-one, except for February."
"We learned that in first grade," said Gina.
"I know a rhyming one!" Raul interjected. "In 1492, Columbus sailed the ocean blue."
"Yes, that is a mnemonic," said Mrs. Jackson. "They can also be phrases where the first letter of each word stands for something. Are you familiar with any of those?"
"I am!" volunteered Mei. "Last year when we were learning map skills, Never Eat Soggy Waffles stood for the directions North, East, South and West."
"Can a mnemonic device help us study for our quiz on the solar system?" asked Edward.
"Absolutely," said Mrs. Jackson. "When I was in school I memorized the order of the planets using the phrase My Very Educated Mother Just Served Us Nine Pies."
"Oh, I get it," said Mei. "My is Mercury. Very is Venus. Educated is Earth. Mother is Mars. Just is Jupiter. Served is Saturn. Us is Uranus. Nine is Neptune. And Pies is Pluto."
"But wait," said Raul. "We can't use that one. Pluto isn't classified as a planet anymore."
"No problem," said Gina, confidently. "We can come up with a mnemonic device of our own!"

## Pronunciation Key

Mnemonic: ne-mon-ick
Pneumonia: ne-moan-ya

Fiction: Fluency - Q1:1

| Monday | Tuesday |
| :---: | :---: |
| Before you read, make a prediction about this story based on the title. | Reread the story aloud to someone. Have the person you read to sign their name below. <br> Listener |
| Why did the author include a pronunciation key? | Who are the characters in the story? |
| Using a timer, see how long it takes you to read the entire story. Record your time below. $\qquad$ minutes $\qquad$ seconds | What is Gina's problem? |
| Where does the story take place? Support your answer with evidence from the text. | Based on the evidence, how do you think Gina will solve her problem? |
| Wednesday | Thursday |
| Reread the story aloud to someone. Have the person you read to sign their name below. <br> Listener $\qquad$ | Using a timer, see how long it takes you to read the entire story. Record your time below. Did your time improve? $\qquad$ minutes $\qquad$ seconds |
| According to the story, what is a mnemonic device? | When might you use the mnemonic device Never Eat Soggy Waffles? |
| How does Gina feel at the beginning of the story? Support your answer with evidence from the text. | After reading the story, what do you think the students will do next? |
| Edward feels mnemonic devices are too hard for kids his age. How does Mrs. Jackson change his mind? | Have you ever used a mnemonic device? If so, what was it? |


| Monday | Tuesday |
| :---: | :---: |
| Before you read, make a prediction about this story based on the title. <br> Accept all reasonable answers. | Reread the story aloud to someone. Have the person you read to sign their name below. <br> Listener |
| Why did the author include a pronunciation key? <br> So the reader would know how to say (pronounce) a word in the story. | Who are the characters in the story? <br> Gina, Edward, Raul, Mei, Mrs. Jackson |
| Using a timer, see how long it takes you to read the entire story. Record your time below. $\qquad$ minutes $\qquad$ seconds | What is Gina's problem? <br> Gina is having trouble memorizing the order of the planets for Friday's quiz. |
| Where does the story take place? Support your answer with evidence from the text. <br> In the school library. The school librarian overheard their conversation. | Based on the evidence, how do you think Gina will solve her problem? <br> She will use a mnemonic device. |
| Wednesday | Thursday |
| Reread the story aloud to someone. Have the person you read to sign their name below. <br> Listener | Using a timer, see how long it takes you to read the entire story. Record your time below. Did your time improve? $\qquad$ minutes $\qquad$ seconds |
| According to the story, what is a mnemonic device? <br> They are memory tricks that help you remember information. | When might you use the mnemonic device Never Eat Soggy Waffles? <br> When using a map. |
| How does Gina feel at the beginning of the story? Support your answer with evidence from the text. <br> Upset or frustrated. She looked at her notes and shook her head. | After reading the story, what do you think the students will do next? <br> They will come up with a mnemonic device for the planets without Pluto. |
| Edward feels mnemonic devices are too hard for kids his age. How does Mrs. Jackson change his mind? <br> She shows him he has been using mnemonic devices since he was a toddler. | Have you ever used a mnemonic device? If so, what was it? <br> Accept all reasonable answers. |

$\qquad$
Date:
Constructed Response 1-Q1:1
Read the story, "Tricking Your Memory". What is the central idea (main idea) of the story? Cite at least 2 pieces of evidence from the story to support the central idea.

Name: $\qquad$

## Date:

1. How is Gina feeling at the beginning of the story?
a. confident
b. concerned
c. excited
d. bored
2. Using evidence from the text, what does the word, pneumonia, mean?
a. a type of device
b. memory tricks
c. a disease
d. a song, rhyme or catchy phrase
3. Which option below best summarizes the story?
a. Using a mnemonic device will guarantee the students receive a good grade on their quiz.
b. All information can be learned by using mnemonic devices.
c. Mnemonic devices are songs, rhymes or catchy phrases.
d. Mnemonic devices can be a helpful tool to help remember information.
4. By the end of the story, Gina would agree with which of the following statements.
a. Mnemonic devices are only for high schoolers and too hard for her to use.
b. Using a mnemonic device will help her prepare for her planets quiz.
c. Mnemonic devices are silly and should not be used.
d. She is now less confident in her ability to do well on her planets quiz.
5. Read the story, "Tricking Your Memory". What character trait would you use to describe Mrs. Jackson? Cite at least 2 pieces of evidence from the story to support your opinion.

Read the story, "Tricking Your Memory". What is the central idea (main idea) of the story? Cite at least 2 pieces of evidence from the story to support the central idea.

The central idea of the story is that a mnemonic device is a tool that can be used to help recall information. It can help the students in this text prepare for their planets quiz. The text states many different ways mnemonic devices can be used to help remember information, such as songs, rhymes and catchy phrases. Mrs. Jackson explains to the students they can use a catchy phrase to help them with their plants quiz (My Very Educated Mother Just Served Us Nine Pies). The students are planning on coming up with their own mnemonic devices to help with their planets quiz.

1. How is Gina feeling at the beginning of the story?
a. confident
b. concerned
c. excited
d. bored
2. Which option below best summarizes the story?
a. Using a mnemonic device will guarantee the students receive a good grade on their quiz.
b. All information can be learned by using mnemonic devices.
c. Mnemonic devices are songs, rhymes or catchy phrases.
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a. Mnemonic devices are only for high schoolers and too hard for her to use.
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c. Mnemonic devices are silly and should not be used.
d. She is now less confident in her ability to do well on her planets quiz.
4. Read the story, "Tricking Your Memory". What character trait would you use to describe Mrs. Jackson? Cite at least 2 pieces of evidence from the story to support your opinion.

One character trait that describes Mrs. Jackson is helpful. When the story begins, Mrs. Jackson is shelving books in the library. This is helpful because she is keeping the library organized and the books will be in the right place, so students can find them and check them out. Mrs. Jackson is also helpful because she explains mnemonic devices to the students when they are confused. She teaches them what a mnemonic device is and how it can help them prepare for their planets quiz. Mrs. Jackson is helpful in this story.

## ELA Week 2

## Trying Something New

Right after Thanksgiving, Maria's grandmother came to visit from Mexico. Maria was thrilled.
"I'm making tamales with my grandmother this weekend," Maria told her friends during lunch. "You two should come over. Homemade tamales are the most wonderful things in the world."
"Aren't tamales spicy?" said Brittany. "I don't eat hot peppers."
Maria shook her head. "You haven'† tasted my grandmother's tamales. She makes ones with pork, ones with chicken, ones with refried beans. She cooks all sorts of tamales, and I love them all. But what's even better is that my family has a party to make them."
"You have a party to cook?" said Jackie. "My mom and I make cookies together, sometimes. It's fun, but I wouldn't call it a party."
"All my aunts and cousins come, and we work in the kitchen with grandmother. We sing songs and tell stories and make tamales."
"I wish I could join you, but I'll be at my cousin's wedding," said Brittany.
"I'm free," said Jackie. "I can't wait to see what it's like with all those people in your kitchen."
"It takes a lot of hands to make good tamales, my grandmother says," said Maria.
After all the talk about tamales, their leftover turkey sandwiches seemed very boring.
"Your grandmother doesn't make turkey tamales, does she?" asked Brittany. "I am so tired of turkey."
"No," said Maria. "Not turkey."
"Your grandmother must like to cook," said Jackie.
"She's the best cook in the world, " said Maria. "And l'm going to learn to cook just like her."
On Saturday, Jackie watched in Maria's kitchen as the family made tamales. Everyone had a job. One of Maria's aunts softened the corn shucks in boiling water. Two other aunts spread masa on the softened shucks. Maria and her cousins put filling on the corn masa, and then Maria's mother and her grandmother rolled up the tamales and tied them with little strips made of corn shuck. The tied tamales were put in a big steamer pot on the stove to cook.
"When I was a little girl, we ground corn for our masa," Maria's grandmother told the children. "That was hard work."
"Would you like to help Maria now?" asked Maria's mother. Maria's cousins wanted to take a break.
"Sure," said Jackie.
Maria's grandmother showed her just how much filling to put in a tamale. Carefully, Jackie spooned a seasoned chicken mixture down the center of the masa on the corn shuck.
"Perfect!" said Maria's grandmother.
Soon Jackie was helping like one of the family. Everyone talked, laughed, and told stories while they made the tamales. It was like a party, but a busy party.

The best part came later, when the tamales were finally done, and Jackie tried all the flavors they had made.
"Which do you like the best?" asked Maria's mother.
"I think I like the chicken ones. Because I helped make them," said Jackie.
"You've learned the best part about cooking," said Maria's grandmother. "Enjoying what you create."

Fiction: Explicit Meaning - Q1:2

Monday
Before you read, make a prediction about this story based on the title.

Where does the second part of the story take place?

Who are the characters in the story?

Have you ever tried something new? If so, what was it?

Tuesday
How does Maria feel about her grandmother? Support your answer with evidence from the text.

What is Maria making with her grandmother this weekend?

Why is Brittany not sure about trying tamales at first?

What is the one kind of tamale Brittany hopes Maria's grandmother doesn'† make? Why?

## Thursday

What was Jackie's job when helping Maria's family make tamales?

What was the best part of cooking the tamales for Maria?

How do you think Jackie feels about trying something new?

How do you think the author feels about trying new things?

| Monday | Tuesday |
| :---: | :---: |
| Before you read, make a prediction about this story based on the title. <br> Accept all reasonable answers. | How does Maria feel about her grandmother? Support your answer with evidence from the text <br> Maria loves her grandmother. One way you can tell is that Maria is excited to see her. |
| Where does the second part of the story take place? <br> In Maria's kitchen | What is Maria making with her grandmother this weekend? <br> tamales |
| Who are the characters in this story? <br> Maria, Brittany, Jackie, Maria's Grandmother and Maria's family | Why is Brittany not sure about trying tamales at first? <br> She thinks they will be too spicy. |
| Have you ever tried something new? If so, what was it? <br> Accept all reasonable answers. | What is the one kind of tamale Brittany hopes Maria's grandmother doesn'† make? Why? <br> Turkey tamales. She is sick of turkey. |
| Wednesday | Thursday |
| How is making tamales at Maria's house different from baking cookies at Jackie's house? <br> Making tamales at Maria's house is like a party, unlike baking cookies at Jackie's house. | What was Jackie's job when helping Maria's family make tamales? <br> Jackie put filling in the tamales. |
| When Maria's grandmother says, "It takes a lot of hands to make good tamales," what does she mean? <br> She means it requires a lot of help (people). | What was the best part of cooking the tamales for Maria? <br> Eating them! |
| Why did Maria and Brittany's turkey sandwiches suddenly not seem so good? <br> After talking about yummy tamales, the sandwiches didn't sound as good. Plus, they are sick of eating turkey. | How do you think Jackie feels about trying something new? <br> She feels excited to try new things. |
| What was Maria's job when making tamales? <br> Maria put filling on the corn masa. | How do you think the author feels about trying new things? <br> The author likes trying new things. |

$\qquad$

## Date:

Constructed Response 1-Q1:2
Read the story, "Trying Something New". This story has 2 settings. Identify the 2 settings and cite evidence from the text to support each setting.

Name: $\qquad$

## Date:

1. What is the main idea (central idea) of the story?
a. Tamales are delicious.
b. Maria's grandma is a good cook.
c. The tradition of tamale making is important to Maria's family.
d. Jackie enjoyed learning how to make tamales.
2. How does the author support the idea that helping with something makes you appreciate the outcome more?
a. "I think I like the chicken ones. Because I helped make them."
b. "It takes a lot of hands to make good tamales."
c. "Your grandmother must like to cook."
d. "We sing songs and tell stories and make tamales."
3. Maria's grandmother says, "It takes a lot of hands to make good tamales."

What can you infer Maria's grandmother means by this statement?
a. It is impossible to make tamales without help.
b. Preparing tamales is a lot of work.
c. The chicken tamales were the best tasting.
d. The best tamales are made when everyone helps.
4. Based on details from the story, what can you infer masa is?
a. corn husks
b. pork, chicken or bean filling
c. a corn spread
d. tamales
5. Read the story, "Trying Something New". What do you think Jackie will tell Brittany about her experience at Maria's house? Based on the text, write what you think Jackie will say. Use at least 2 examples from the text to support your response.

Read the story, "Trying Something New". This story has 2 settings. Identify the 2 settings and cite evidence from the text to support each setting.

The story, "Trying Something New" has two settings. The first setting is during lunch at school. I know this is the first setting because the text states, "Maria told her friends during lunch." Also, the girls were eating leftover turkey sandwiches for lunch while they talked.

The second setting is Maria's kitchen. The text states, "On Saturday, Jackie watched in Maria's kitchen as the family made tamales." The rest of the story takes place in Maria's kitchen.

1. What is the main idea (central idea) of the story?
a. Tamales are delicious.
b. Maria's grandma is a good cook.
c. The tradition of tamale making is important to Maria's family.
d. Jackie enjoyed learning how to make tamales.
2. How does the author support the idea that helping with something makes you appreciate the outcome more?
a. "I think I like the chicken ones. Because I helped make them."
b. "It takes a lot of hands to make good tamales."
c. "Your grandmother must like to cook."
d. "We sing songs and tell stories and make tamales.
3. Maria's grandmother says, "You learned
the best part about cooking...enjoying what you create."
What can you infer Maria's grandmother means by this statement?
a. eating food is the best part of cooking
b. cooking is a lot of work
c. The chicken tamales were the best tasting.
d. The best tamales are made when everyone helps.
4. Based on details from the story, what can you infer masa is?
a. corn husks
b. pork, chicken or bean filling
c. a corn spread
d. tamales
d. The best tamales are made when
everyone helps.
5. Read the story, "Trying Something New". What do you think Jackie will tell Brittany about her experience at Maria's house? Based on the text, write what you think Jackie will say. Use at least 2 examples from the text to support your response.

I think Jackie will tell Brittany that she enjoyed making tamales at Maria's
house with Maria's family. Jackie watched Maria's family make tamales and when it was her turn to help, she did a really good job. The text said, "Soon Jackie was helping like one of the family. Everyone talked, laughed and told stories while they made tamales. It was like a party, a busy party." Jackie liked the chicken tamales best because she helped make them. Jackie enjoyed spending the day making tamales with Maria's family.

## Math Work

## Understanding of Place Value

## Set A

1 Write the number 78,215 in the place-value chart.

| Hundred <br> Thousands | Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

Write 78,215 in expanded form and word form.

2 Write the number 540,632 in the place-value chart.

| Hundred <br> Thousands | Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |

Write 540,632 in expanded form and word form.

## Set B

3 Show different ways to make 25,302.
$\qquad$ thousands + $\qquad$ hundreds + $\qquad$ ones
$\qquad$ hundreds + $\qquad$ ones
$\qquad$ ones

4 Show different ways to make 708,496.
$\qquad$ hundred thousands + $\qquad$ thousands + $\qquad$ hundreds +
$\qquad$ tens + $\qquad$ ones
$\qquad$ thousands + $\qquad$ hundreds + $\qquad$ tens + $\qquad$ ones
$\qquad$ hundreds + $\qquad$ tens + $\qquad$ ones
$\qquad$

Set B continued

5 Show different ways to make 492,623.
$\qquad$ ten thousands + $\qquad$ thousands + $\qquad$ hundreds +
$\qquad$ tens + $\qquad$ ones
$\qquad$ thousands + $\qquad$ tens + $\qquad$ ones
$\qquad$ hundreds + $\qquad$ ones

6 Write 841,620 in three different ways.

7 Why do both of these show 27,974 ? $20,000+7,000+900+70+4 \quad 27$ thousands +97 tens +4 ones
$\qquad$

Set A
Write the symbol that makes each statement true. Use $\gg,<$, or $=$.

123,230 $\qquad$ 2,323

233,003 $\qquad$ 33,030
(3),999 $\qquad$ 10,000

4 40,404 $\qquad$ 40,040
(5) 52,177 $\qquad$ 52,771
(6) 421,073 $\qquad$ 412,730

## Set B

7 Circle all the numbers that are less than 78,265.
78,000
79,000
70,000
80,000
78,200
78,300

8 Circle all the numbers that are less than 45,763.
46,000
40,000
50,000
45,700
45,800
45,000

9 Circle all the numbers that are greater than 108,427.
$\begin{array}{llllll}108,000 & 108,400 & 108,500 & 109,000 & 108,430 & 108,420\end{array}$

10 How did you solve problem 7?

## Rounding Whole Numbers

$\qquad$

Round each number to the nearest ten.
172
2172
3 2,572
4 101,372

Round each number to the nearest hundred.
(5) 180
$\qquad$
(1,180
$\qquad$

8980
$\qquad$
9 1,980
$\qquad$

7 56,180
$\qquad$

10 56,980
$\qquad$

Round each number to the nearest thousand.
11 7,750
12 17,750
13 25,750
1470,750
$\qquad$
$\qquad$
$\qquad$

Round each number to the nearest ten thousand.
15 65,321
16 165,321
17 185,321
18 205,321
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

19 Round 307,451 to each place value given below.
to the nearest thousand: $\qquad$
to the nearest hundred: $\qquad$
to the nearest ten: $\qquad$

## Using Strategies to Add

$\qquad$

## Add using different strategies.

$1 \begin{array}{r}4,000 \\ +6,215 \\ \hline\end{array}$
2 4,010
$+6,215$
3 4,121
6,215
4 3,000 $+6,871$
5 2,999
$\begin{array}{r}+6,871 \\ \hline\end{array}$
6 2,990
$\begin{array}{r}+6,871 \\ \hline\end{array}$
7 5,020
$+1,491$
8 4,990
$+1,491$
9 4,950 $+1,491$

10 What strategies did you use to solve the problems? Explain.

11 Check your answer to problem 6 by solving it with a different strategy. Show your work.

## Using Strategies to Subtract

Name: $\qquad$

Subtract.
$1 \begin{array}{r}4,003 \\ -\quad 3 \\ \hline\end{array}$
(2) $\begin{array}{r}2,000 \\ -1,999\end{array}$
(3) $\begin{array}{r}3,007 \\ -\quad 7\end{array}$

4,003
$-\quad 13$

## 3

$$
\begin{array}{r}
2,000 \\
-\quad 1,990 \\
\hline
\end{array}
$$

$$
\begin{array}{r}
3,007 \\
-\quad 27 \\
\hline
\end{array}
$$

3,007
$-103$
2,000
$-1,985$

$$
\begin{aligned}
& -\quad 307 \\
& \hline
\end{aligned}
$$

4,003
2,000
$-1,500$
$\begin{array}{r}-1,307 \\ \hline\end{array}$

4,003
2,000
3,007
$-2,103$
$-1,490$
$-2,307$

4 What strategy did you use to find the differences for problem 2? Explain.

5 How could you check your answer to one of the problems using another strategy?

## Using the Standard Algorithm

Estimate. Circle all the problems with differences between 30,000 and 60,000. Then find the differences of only the circled problems.
$1 \begin{array}{r}95,217 \\ -39,871 \\ \hline\end{array}$

4 84,724
$\begin{array}{r}-43,951 \\ \hline\end{array}$

7 99,902
$-33,227$

10 78,282
$-40,983$

13 86,496

- 54,101

8 87,591
$-46,280$
262,554
$\begin{array}{r}-31,618 \\ \hline\end{array}$

5 56,417
$-24,009$

11 71,731
$-61,320$

14 59,176
$-17,222$
(9) $\begin{array}{r}90,434 \\ -51,533\end{array}$
$-51,533$
3 92,023
$\begin{array}{r}-71,578 \\ \hline\end{array}$

6 71,677
$-13,197$

12 50,118
$-18,306$

15 89,971
$-11,499$

16 Use estimation and addition to check one of your answers. Show your work.

17 How does checking with addition compare with checking using estimation?

## Multiplication in Word Problems

$\qquad$

## Use a strategy of your choice to solve each problem.

1 The library has 5 mystery books on a shelf. It has 4 times as many fiction books on another shelf. How many fiction books are on the shelf?

There are $\qquad$ fiction books on the shelf.

3 Violet has 3 markers. She has 6 times as many colored pencils as markers. How many colored pencils does she have?

Violet has $\qquad$ colored pencils.

5 Tasha used 8 tomatoes to make salsa. She used 4 times as many tomatoes to make sauce. How many tomatoes did Tasha use to make sauce?

Tasha used $\qquad$ tomatoes to make sauce.

7 There are 9 school buses in the parking lot. There are 6 times as many cars as school buses in the parking lot. How many cars are in the parking lot?

There are $\qquad$ cars in the parking lot.

2 Paul runs 2 laps around the gym. Carrie runs 6 times as many laps as Paul. How many laps does Carrie run?

Carrie runs $\qquad$ laps.

4 Owen draws 7 comics in April. He draws 3 times as many comics in May. How many comics does Owen draw in May?

Owen draws $\qquad$ comics in May.

6 There are 7 pear trees on a farm. There are 7 times as many apple trees as pear trees. How many apple trees are on the farm?

There are $\qquad$ apple trees.

8 There are 8 vases at an art show. There are 9 times as many paintings as vases at the art show. How many paintings are at the art show?

There are $\qquad$ paintings at the art show.

9 Write and solve a word problem for this equation: $5 \times 6=$ ?

## Solving Multi-Step Problems

## Write and solve an equation for each problem. Show your work.

1 Tasha spends 25 minutes reading on Wednesday night. She spends 17 more minutes reading on Thursday than she did on Wednesday. Write and solve an equation to find how many minutes Tasha spent reading on Wednesday and Thursday nights.

2 Erik has 2 bags of bird seed. One bag has 10 pounds of seed, and the other bag has 8 pounds of seed. He fills 7 bird feeders with 2 pounds each. Write and solve an equation to find how many pounds of bird seed are left.

Tasha spent $\qquad$ minutes reading.

There are $\qquad$ pounds left.

3 There are 15 boys and 19 girls in math club. The tables in Mrs. Miller's classroom seat 4 students each. Write and solve an equation to find how many tables Mrs. Miller will need.

4 Frankie earns \$5 each time he babysits his little sister. He has saved \$30. Frankie wants to save $\$ 52$ to buy a new skateboard. Write and solve an equation to find how many more times Frankie will need to babysit.

Mrs. Miller will need $\qquad$ tables.

Frankie will need to babysit $\qquad$ more times.

5 How can you estimate to check one of your answers? Show your work.

# Multiplying a Three-Digit Number by a One-Digit Number 

$\qquad$

Find the product.
$1500 \times 4=$ $\qquad$ $501 \times 4=$ $\qquad$ $506 \times 4=$ $\qquad$
(2) $300 \times 2=$ $\qquad$ $299 \times 2=$ $\qquad$ $298 \times 2=$ $\qquad$
(3) $400 \times 3=$ $\qquad$ $405 \times 3=$ $\qquad$
$410 \times 3=$ $\qquad$
(4) $499 \times 6=$ $\qquad$
[5 $706 \times 3=$ $\qquad$
(6) $195 \times 5=$ $\qquad$

7 What pattern do you notice in problem 2? How could it help you solve a problem such as $297 \times 2$ ?

8 Choose problem 4, 5, or 6. Explain how you could check your answer.

## Multiplying a Four-Digit

$\qquad$

Estimate. Circle all the problems that will have products between 18,000 and 32,000 . Then find the exact products of only the problems you circled. Show your work.
$18,491 \times 2=$ $\qquad$
(2) $6,148 \times 4=$ $\qquad$ (3) $7,062 \times 5=$ $\qquad$
$4,362 \times 5=$ $\qquad$
(5) $1,789 \times 8=$ $\qquad$ 6 $2,206 \times 9=$ $\qquad$
$77,218 \times 4=$ $\qquad$ $89,821 \times 3=$ $\qquad$ (9) $4,762 \times 6=$ $\qquad$
$106,739 \times 6=$ $\qquad$ $117,964 \times 4=$ $\qquad$ 12 $3,618 \times 7=$ $\qquad$

13 What strategies did you use to solve the problems? Explain.

## Division in Word Problems

## Use a strategy of your choice to solve each problem.

1 There are 5 times as many tulips as rose bushes in a garden. There are 15 tulips. How many rose bushes are in the garden?

There are $\qquad$ rose bushes in the garden.

3 There are 18 blueberries in a bowl. There are 3 times as many blueberries as strawberries in the bowl. How many strawberries are in the bowl?

There are $\qquad$ strawberries in the bowl.

5 A tile pattern has 6 times as many white squares as gray squares. There are 48 white tiles in the pattern. How many gray tiles are there?

There are $\qquad$ gray tiles in the pattern.

7 Erik sees 42 stars in the sky on Tuesday night. This is 7 times as many stars as he sees on Monday night. How many stars does Erik see on Monday night?

Erik sees $\qquad$ stars on Monday night.

2 Kelly has 2 times as many quarters as dimes. She has 18 quarters. How many dimes does she have?

Kelly has $\qquad$ dimes.

4 Amanda swims for 16 minutes. This is 4 times as many minutes as Julio swims. How many minutes does Julio swim?

Julio swims $\qquad$ minutes.

6 Leah has 3 times as many country songs as she has pop songs on her MP3 player. She has 27 country songs. How many pop songs does Leah have?

Leah has $\qquad$ pop songs.

8 Lucas spends 72 minutes cleaning his room. This is 8 times as long as it takes him to wash the dishes. How long does it take Lucas to wash the dishes?

It takes Lucas $\qquad$ minutes to wash the dishes.

9 Write and solve a word problem for this equation: $6 \times n=54$
$\qquad$

The answers to problems 1-12 are mixed up at the bottom of the page. Cross out the answers as you complete the problems.
$1606 \div 2=$ $\qquad$
2) $606 \div 3=$ $\qquad$ (3) $903 \div 3=$ $\qquad$
(4) $408 \div 8=$ $\qquad$ (5) $243 \div 3=$ $\qquad$ (6) $721 \div 7=$ $\qquad$
(7) $545 \div 5=$ $\qquad$
(8) $488 \div 8=$ $\qquad$ $9816 \div 4=$ $\qquad$
$10728 \div 8=$ $\qquad$
(11) $459 \div 9=$ $\qquad$ 12 $366 \div 6=$ $\qquad$

13 What strategies did you use to solve the problems?

14 Explain how to use multiplication to check your answer to problem 10.

## Answers

91
303
61
202
204
109

81
51
301
103
51
61
$\qquad$

Estimate. Circle all the problems with quotients between 500 and 1,500. Then find the exact quotients of only the problems you circled.
(1) $2,508 \div 4=$ $\qquad$ (2) $7,058 \div 9=$ $\qquad$ (3) $2,726 \div 9=$ $\qquad$
(4) $7,429 \div 5=$ $\qquad$ (5) $3,506 \div 9=$ $\qquad$ (6) $8,318 \div 8=$ $\qquad$
(7) $7,645 \div 2=$ $\qquad$ $84,113 \div 4=$ $\qquad$ (9) $3,196 \div 5=$ $\qquad$
$105,018 \div 7=$ $\qquad$
(11) $8,127 \div 6=$ $\qquad$ (12) $6,155 \div 3=$ $\qquad$

13 What strategies did you use to estimate the quotients? Explain.

14 Check one of your answers by solving it with a different strategy. Show your work.
$\qquad$

Write the missing numbers in the boxes to make each equation true.
1 $\frac{2}{4} \times \frac{\square}{\square}=\frac{8}{16}$
2 $\frac{2}{3} \times \frac{\square}{\square}=\frac{12}{18}$
(3) $\frac{5}{6} \times \frac{\square}{\square}=\frac{25}{30}$
$4 \frac{2}{3} \times \frac{\square}{3}=\frac{6}{\square}$
$5 \frac{3}{8} \times \frac{5}{\square}=\frac{15}{\square}$
$6 \frac{5}{6} \times \frac{\square}{\square}=\frac{\square}{12}$
$7 \frac{5}{\square} \times \frac{\square}{\square}=\frac{15}{24}$
$8 \frac{2}{\square} \times \frac{4}{\square}=\frac{\square}{12}$
9


10 Which strategies did you use to solve the problems? Explain why.

# Using Common Numerators and Denominators 

$\qquad$

## Compare the fractions. Write $<,>$, or $=$.

$1 \frac{3}{4} \bigcirc \frac{3}{8}$
(2) $\frac{2}{3} \bigcirc \frac{4}{5}$
(3) $\frac{1}{5} \bigcirc \frac{2}{10}$
$4 \frac{2}{10} \bigcirc \frac{23}{100}$
$5 \frac{7}{8} \bigcirc \frac{3}{4}$
6

$7 \frac{10}{12} \bigcirc \frac{5}{6}$
$8 \frac{53}{100} \bigcirc \frac{1}{2}$
$9 \frac{2}{8} \bigcirc \frac{9}{12}$
10

$11 \frac{4}{5} \bigcirc \frac{77}{100}$
$12 \frac{1}{3} \circlearrowleft \frac{5}{12}$
13
$\frac{1}{4} \circlearrowleft \frac{2}{12}$
14

$15 \frac{2}{3} \circlearrowleft \frac{3}{6}$

16 Show a model you can use to check your answer to problem 12.

Name: $\qquad$

1 Label the number line and use it to show $\frac{3}{4}+\frac{3}{4}$.


Shade the area model to show $\frac{3}{4}+\frac{3}{4}$.


Write the sum. $\frac{3}{4}+\frac{3}{4}=$

2 Label the number line and use it to show $\frac{10}{8}-\frac{4}{8}$.


Show $\frac{10}{8}-\frac{4}{8}$ on the area model.


Write the difference. $\frac{10}{8}-\frac{4}{8}=$
$\qquad$

Write the missing numbers in the boxes to make each addition problem true.
1 $\frac{1}{6}+\frac{4}{6}=\frac{\square}{6}$
$2 \frac{1}{8}+\frac{4}{8}=\frac{\square}{\square}$
(3) $\frac{1}{10}+\frac{4}{10}=\frac{\square}{\square}$
$4 \frac{4}{12}+\frac{\square}{\square}=\frac{7}{12}$

5 $\frac{4}{6}+\frac{\square}{\square}=\frac{7}{6}$
$6 \frac{4}{3}+\frac{\square}{\square}=\frac{7}{3}$
$7 \frac{\square}{\square}+\frac{2}{4}=\frac{5}{4}$
$8 \frac{\square}{\square}+\frac{2}{10}=\frac{5}{10}$
9

$10 \frac{\square}{6}+\frac{2}{6}=\frac{\square}{6}$
$11 \frac{\square}{5}+\frac{1}{5}=\frac{\square}{5}$
$12 \frac{4}{10}+\frac{\square}{10}=\frac{\square}{10}$

13 Write a number from 1-12 in each box so that the addition problem is true.

$$
\frac{\square}{12}+\frac{5}{\square}=\frac{\square}{12}
$$

$\qquad$

## Solve each problem.

1 Sammy has $\frac{4}{5}$ of his art project left to paint. He paints $\frac{2}{5}$ of the project. What fraction of the project is left to paint?

3 Yuna plans to run 1 mile. She has run $\frac{7}{10}$ of a mile so far. What fraction of a mile does she have left to run?

2 Marianne has $\frac{6}{8}$ of a yard of green ribbon. She uses $\frac{3}{8}$ of a yard for a craft project. How much green ribbon is left?

4 Alex and Brady are helping to pack books into a box. Together they pack $\frac{7}{12}$ of the books. Alex packs $\frac{4}{12}$ of the books. What fraction of the books does Brady pack?
$\qquad$

Find three ways to decompose each fraction into a sum of other fractions with the same denominator.
(1) $\frac{3}{4}=\frac{1}{4}+\frac{1}{4}+$ $\qquad$
2) $\frac{7}{8}=\frac{6}{8}+$ $\qquad$
$\frac{7}{8}=\frac{5}{8}+$ $\qquad$ $\frac{7}{8}=\frac{4}{8}+$ $\qquad$
$\frac{3}{4}=\frac{2}{4}+$ $\qquad$
$\frac{3}{4}=\frac{1}{4}+$ $\qquad$
(3) $\frac{6}{5}=\square+\frac{3}{5}$
$\frac{6}{5}=\frac{2}{5}+$ $\qquad$ $+$ $\qquad$
$\frac{6}{5}=\frac{2}{5}+\frac{2}{5}+$ $\qquad$ $+$ $\qquad$
(4) $\frac{5}{6}=$ $\qquad$ $+\frac{3}{6}$
$\frac{5}{6}=\frac{1}{6}+$ $\qquad$ $+$ $\frac{5}{6}=\frac{1}{6}+\frac{1}{6}+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$
(6) $\frac{8}{10}=$ $\qquad$ $+\frac{4}{10}$

$$
\frac{9}{12}=\frac{3}{12}+\frac{3}{12}+\ldots+\ldots+
$$ $\frac{8}{10}=\frac{2}{10}+\frac{3}{10}+$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $\frac{9}{12}=$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$ $\frac{8}{10}=$ $\qquad$ $+$ $\qquad$ $+$ $\qquad$

7 Describe your strategy for finding the missing numbers.

## Math

## Answer Key

## Understanding of Place Value

## Set A

1 Write the number 78,215 in the place-value chart.

| Hundred <br> Thousands | Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 7 | 8 | 2 | 1 | 5 |

Write 78,215 in expanded form and word form.

$$
70,000+8,000+200+10+5 ; \text { seventy-eight thousand, two hundred fifteen }
$$

2 Write the number 540,632 in the place-value chart.

| Hundred <br> Thousands | Ten <br> Thousands | Thousands | Hundreds | Tens | Ones |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 4 | 0 | 6 | 3 | 2 |

Write 540,632 in expanded form and word form.
$500,000+40,000+600+30+2$; five hundred forty thousand, six hundred thirty-two

## Set B

3 Show different ways to make 25,302.
$\qquad$ thousands + $\qquad$ hundreds + $\qquad$ ones 253 hundreds + $\qquad$ ones

25,302 ones

4 Show different ways to make 708,496.
$\qquad$ hundred thousands + $\qquad$ thousands + $\qquad$ hundreds +
$\qquad$ tens + $\qquad$ ones
$\qquad$ thousands + $\qquad$ hundreds + $\qquad$ tens + $\qquad$ 6 _ones 7,084 hundreds + $\qquad$ tens + $\qquad$ ones

## Set B continued

5 Show different ways to make 492,623.
49 ten thousands $+\ldots \quad 2$ th thousands + $\qquad$ hundreds +
$\qquad$ tens + $\qquad$ ones
$\qquad$ thousands + $\qquad$ 62 tens + $\qquad$ ones
$\qquad$ hundreds + $\qquad$ ones

6 Write 841,620 in three different ways.
Answers will vary. Possible answer: 800,000 + 40,000 + 1,000 + 600 + 20;
841 thousands $\mathbf{+} \mathbf{6 2 0}$ ones; eight hundred forty-one thousand, six hundred twenty

7 Why do both of these show 27,974 ?
$20,000+7,000+900+70+4 \quad 27$ thousands +97 tens +4 ones
Answers will vary. Possible answer: If you add the expanded form, it has a sum of $\mathbf{2 7 , 9 7 4}$. If you add $27,000+970+4$, it also has a sum of 27,794 .

## Comparing Multi-Digit Numbers

Set A
Write the symbol that makes each statement true. Use $>,<$, or $=$.
123,230 $\qquad$ 2,323
233,003 $\qquad$ 33,030
(3) 9,999 $\qquad$ 10,000
(4) 40,404 $\qquad$ 40,040
(5) 52,177 $\qquad$ 52,771

6421,073 $\qquad$ 412,730

## Set B

7 Circle all the numbers that are less than 78,265.

79,000

80,000

78,300

8 Circle all the numbers that are less than 45,763.
46,000

50,000

45,800


9 Circle all the numbers that are greater than 108,427.
108,000
108,400


108,420

10 How did you solve problem 7?
Answers will vary.
Possible answer: I compared each number with 78,265. If the digits were the same in the ten-thousands place, I compared the digit to the right. I repeated this until I could tell if the number was less than 78,265.

## Rounding Whole Numbers

Round each number to the nearest ten.
172
(2) 172
70
(3) 2,572
$\qquad$
4 101,372
101,370
101,370
170
2,570

Round each number to the nearest hundred.

5180
$\qquad$
(6) 1,180

1,200
(9) 1,980

2,000
8980 1,000

$$
=0
$$

7 56,180
56,200

10 56,980
57,000

Round each number to the nearest thousand.
11 7,750
(12) 17,750
8,000
18,000
13 25,750
26,000
14 70,750
71,000

Round each number to the nearest ten thousand.

15 65,321 70,000

16 165,321
170,000

17 185,321
190,000

18 205,321
210,000

19 Round 307,451 to each place value given below.
to the nearest thousand: 307,000
to the nearest hundred: 307,500
to the nearest ten: 307,450

## Add using different strategies.

14,000
$+6,215$
10,215
2 4,010
$+6,215$
3 4,121
$\begin{array}{r}+6,215 \\ \hline 10,336\end{array}$

4

$$
\begin{array}{r}
3,000 \\
+6,871 \\
\hline 9,871
\end{array}
$$

5 2,999
$\begin{array}{r}+6,871 \\ \hline 9,870\end{array}$
6 2,990

$$
\frac{+6,871}{9,861}
$$

7 5,020
$\begin{array}{r}+1,491 \\ \hline 6,511\end{array}$
8 4,990 $\begin{array}{r}+1,491 \\ \hline 6,481\end{array}$
9 4,950
$\begin{array}{r}+1,491 \\ \hline 6,441\end{array}$

10 What strategies did you use to solve the problems? Explain.
Answers will vary. Possible answer: In problem 5, I needed to add 1 less than 3,000. So I added 3,000 and then subtracted 1.

11 Check your answer to problem 6 by solving it with a different strategy. Show your work. Answers will vary.

## Subtract.

1
$1 \begin{array}{r}4,003 \\ -\quad 3 \\ \hline 4,000\end{array}$
$\begin{array}{r}4,003 \\ -\quad 13 \\ \hline 3,990\end{array}$
$\begin{array}{r}4,003 \\ -\quad 103 \\ \hline 3,900\end{array}$

4,003
$\begin{array}{r}-1,103 \\ \hline 2,900\end{array}$

4,003
$\begin{array}{r}-2,103 \\ \hline 1,900\end{array}$
2. $\begin{array}{r}2,000 \\ -\quad 1,999 \\ \hline 1\end{array}$

| 2,000 |
| ---: | ---: |
| $-1,990$ |
| 10 |$\quad$| 3,007 |
| ---: |
| $-\quad 27$ |
| 2,980 |

2,000
$\begin{array}{r}-1,985 \\ \hline 15\end{array}$
$\begin{array}{r}2,000 \\ -\quad 1,500 \\ \hline 500\end{array}$

2,000
$\begin{array}{r}-1,490 \\ \hline 510\end{array}$
3) $\begin{array}{r}3,007 \\ -\quad 7 \\ \hline 3,000\end{array}$

$$
\begin{array}{r}
3,007 \\
-\quad 27 \\
\hline 2,980
\end{array}
$$

$$
3,007
$$

$$
\begin{aligned}
& -\quad 307 \\
& \hline
\end{aligned}
$$

$$
\overline{2,700}
$$

$$
3,007
$$

$$
\frac{-1,307}{1,700}
$$

$$
3,007
$$

$$
\frac{-2,307}{700}
$$

4 What strategy did you use to find the differences for problem 2? Explain. Answers will vary. Possible answer: I added on to the number being subtracted to get to 2,000.

5 How could you check your answer to one of the problems using another strategy? Answers will vary.

## Using the Standard Algorithm to Subtract Greater Numbers

Estimate. Circle all the problems with differences between $\mathbf{3 0 , 0 0 0}$ and $\mathbf{6 0 , 0 0 0}$. Then find the differences of only the circled problems.
(1) 95,217
$\begin{array}{r}-39,871 \\ \hline\end{array}$
55,346


3 92,023
$\begin{array}{r}-71,578 \\ \hline\end{array}$
(4) $\begin{array}{r}84,724 \\ -43,951 \\ \hline 40,773\end{array}$

(6) $\begin{array}{r}71,677 \\ -13,197 \\ \hline 58,480\end{array}$

7 99,902
$\begin{array}{r}-33,227 \\ \hline\end{array}$

(9) $\begin{array}{r}90,434 \\ -51,533 \\ \hline 38,901\end{array}$
(10) 78,282
$11 \begin{array}{r}71,731 \\ -61,320 \\ \hline\end{array}$
(12) $\begin{array}{r}50,118 \\ -18,306 \\ \hline 31,812\end{array}$
(13) 86,496
$\begin{array}{r}-54,101 \\ \hline 32,395\end{array}$
14 59,176
$\begin{array}{r}-17,222 \\ \hline 41,954\end{array}$
15 89,971
$\begin{array}{r}-11,499 \\ \hline\end{array}$

16 Use estimation and addition to check one of your answers. Show your work. Answers will vary.

17 How does checking with addition compare with checking using estimation? Answers will vary. Possible answer: Addition takes longer, but will catch wrong answers that seem reasonable. Estimation only catches wrong answers that are unreasonable.

## Use a strategy of your choice to solve each problem.

1 The library has 5 mystery books on a shelf. It has 4 times as many fiction books on another shelf. How many fiction books are on the shelf?

There are $\qquad$ fiction books on the shelf.

3 Violet has 3 markers. She has 6 times as many colored pencils as markers. How many colored pencils does she have?

Violet has $\qquad$ colored pencils.

5 Tasha used 8 tomatoes to make salsa. She used 4 times as many tomatoes to make sauce. How many tomatoes did Tasha use to make sauce?

Tasha used $\qquad$ 32 tomatoes to make sauce.

7 There are 9 school buses in the parking lot. There are 6 times as many cars as school buses in the parking lot. How many cars are in the parking lot?

There are $\qquad$ 54 cars in the parking lot.

2 Paul runs 2 laps around the gym. Carrie runs 6 times as many laps as Paul. How many laps does Carrie run?

Carrie runs $\qquad$ laps.

4 Owen draws 7 comics in April. He draws 3 times as many comics in May. How many comics does Owen draw in May?

Owen draws $\qquad$ comics in May.

6 There are 7 pear trees on a farm. There are 7 times as many apple trees as pear trees. How many apple trees are on the farm?

There are $\qquad$ apple trees.

8 There are 8 vases at an art show. There are 9 times as many paintings as vases at the art show. How many paintings are at the art show?

There are $\qquad$ 72 paintings at the art show.

9 Write and solve a word problem for this equation: $5 \times 6=$ ?
Answers will vary. Possible answer: There are 6 brown hens. There are 5 times as many white hens as brown hens. How many white hens are there?
There are 30 white hens.

## Solving Multi-Step Problems

Write and solve an equation for each problem. Show your work. Possible equations shown.

1 Tasha spends 25 minutes reading on Wednesday night. She spends 17 more minutes reading on Thursday than she did on Wednesday. Write and solve an equation to find how many minutes Tasha spent reading on Wednesday and
Thursday nights.
$r=25+(25+17)$
$r=25+42$
$r=67$
2 Erik has 2 bags of bird seed. One bag has 10 pounds of seed, and the other bag has 8 pounds of seed. He fills 7 bird feeders with 2 pounds each. Write and solve an equation to find how many pounds of bird seed are left.

$$
\begin{aligned}
& b=(10+8)-(7 \times 2) \\
& b=18-14 \\
& b=4
\end{aligned}
$$

There are 4 pounds left.
Tasha spent $\qquad$ minutes reading.

3 There are 15 boys and 19 girls in math club. The tables in Mrs. Miller's classroom seat 4 students each. Write and solve an equation to find how many tables Mrs. Miller will need.
$t=(15+19) \div 4$
$t=34 \div 4$
$34 \div 4=8$ R 2

Mrs. Miller will need $\qquad$ 9 tables.

4 Frankie earns \$5 each time he babysits his little sister. He has saved \$30. Frankie wants to save \$52 to buy a new skateboard. Write and solve an equation to find how many more times Frankie will need to babysit.
$b=(52-30) \div 5$
$b=22 \div 5$
$22 \div 5=4$ R 2

Frankie will need to babysit $\qquad$ more times.

5 How can you estimate to check one of your answers? Show your work. Answers will vary.

# Multiplying a Three-Digit 

## Find the product.

$1500 \times 4=\underline{2,000}$
$501 \times 4=\underline{2,004}$
$506 \times 4=\underline{2,024}$
(2) $300 \times 2=\underline{600}$
$299 \times 2=\underline{598}$
$298 \times 2=\underline{596}$
(3) $400 \times 3=1,200$
$405 \times 3=\underline{1,215}$
$410 \times 3=\underline{1,230}$
4) $499 \times 6=\underline{2,994}$
[5 $706 \times 3=\underline{2,118}$
(6) $195 \times 5=\underline{975}$

7 What pattern do you notice in problem 2? How could it help you solve a problem such as $297 \times 2$ ?
Answers will vary. Possible answer: Each product is 2 less than the previous product. As one factor decreases by 1 , the product decreases by $2 \times 1$, or 2 . To find $297 \times 2$, you could multiply $300 \times 2=600$, then subtract $3 \times 2$ from the product. You subtract $3 \times 2$ because 297 is 3 less than 300 .

8 Choose problem 4, 5, or 6. Explain how you could check your answer.
Answers will vary.

Estimate. Circle all the problems that will have products between 18,000 and 32,000. Then find the exact products of only the problems you circled. Show your work.
(1) $8,491 \times 2=$ $\qquad$
(2) $6,148 \times 4=\underline{24,592}$
(3) $7,062 \times 5=$ $\qquad$
(4) $4,362 \times 5=\underline{21,810}$
(5) $1,789 \times 8=$ $\qquad$ (6) $2,206 \times 9=19,854$
(7) $7,218 \times 4=\underline{28,872}$
(8) $9,821 \times 3=\underline{29,463}$
(9) $4,762 \times 6=\underline{28,572}$
(10 $6,739 \times 6=$ $\qquad$
(11) $7,964 \times 4=\underline{31,856}$
(12) $3,618 \times 7=\underline{25,326}$

13 What strategies did you use to solve the problems? Explain.
Answers will vary. Possible answer: I rounded the greater number to the nearest thousand to estimate the product. Then I used place value to multiply.

## Division in Word Problems

## Use a strategy of your choice to solve each problem.

1 There are 5 times as many tulips as rose bushes in a garden. There are 15 tulips. How many rose bushes are in the garden?

There are $\qquad$ rose bushes in the garden.

3 There are 18 blueberries in a bowl. There are 3 times as many blueberries as strawberries in the bowl. How many strawberries are in the bowl?

There are $\qquad$ strawberries in the bowl.

5 A tile pattern has 6 times as many white squares as gray squares. There are 48 white tiles in the pattern. How many gray tiles are there?

There are $\qquad$ gray tiles in the pattern.

7 Erik sees 42 stars in the sky on Tuesday night. This is 7 times as many stars as he sees on Monday night. How many stars does Erik see on Monday night?

Erik sees $\qquad$ stars on Monday night.

2 Kelly has 2 times as many quarters as dimes. She has 18 quarters. How many dimes does she have?

Kelly has _ 9 dimes.

4 Amanda swims for 16 minutes. This is 4 times as many minutes as Julio swims. How many minutes does Julio swim?

Julio swims $\qquad$ minutes.

6 Leah has 3 times as many country songs as she has pop songs on her MP3 player. She has 27 country songs. How many pop songs does Leah have?

Leah has $\qquad$ 9 pop songs.

8 Lucas spends 72 minutes cleaning his room. This is 8 times as long as it takes him to wash the dishes. How long does it take Lucas to wash the dishes?

It takes Lucas $\qquad$ minutes to wash the dishes.

9 Write and solve a word problem for this equation: $6 \times n=54$
Answers will vary. Possible answer: Maggie has 6 times as many unicorn stickers as robot stickers. She has 54 unicorn stickers. How many robot stickers does Maggie have? Maggie has 9 robot stickers.

The answers to problems 1-12 are mixed up at the bottom of the page. Cross out the answers as you complete the problems.
1 1 $606 \div 2=$ $\qquad$
(2) $606 \div 3=$ $\qquad$ (3) $903 \div 3=$ $\qquad$
(4) $408 \div 8=\underline{51}$
(5) $243 \div 3=\underline{81}$
(6) $721 \div 7=$ $\qquad$ 103
(7) $545 \div 5=$ $\qquad$ 8 $488 \div 8=$ $\qquad$ $9816 \div 4=$ $\qquad$ 204
$10728 \div 8=$ $\qquad$
$11459 \div 9=$ $\qquad$ (12) $366 \div 6=$ $\qquad$ 61

13 What strategies did you use to solve the problems?
Answers will vary. Possible answer: I used an area model strategy, breaking the problem apart into smaller parts and using repeated subtraction.

14 Explain how to use multiplication to check your answer to problem 10 .
Possible answer: Multiply $90 \times 8=720$ and $8 \times 1=8$. Then add: $720+8=728$

Answers
91
303
61
202
204
109
81
51
301
103
51
61

Estimate. Circle all the problems with quotients between 500 and 1,500. Then find the exact quotients of only the problems you circled.
(1) $2,508 \div 4=627$
(2) $7,058 \div 9=784$ R 2
(3) $2,726 \div 9=$ $\qquad$
(4) $7,429 \div 5=\underline{1,485 \mathrm{R} 4}$
(5) $3,506 \div 9=$ $\qquad$ (6) $8,318 \div 8=\underline{1,039 \mathrm{R} 6}$
$77,645 \div 2=$ $\qquad$ (8) $4,113 \div 4=\underline{1,028 \mathrm{R} 1}$
(9) $3,196 \div 5=639$ R 1
(10) $5,018 \div 7=\underline{716 R 6}$
(11) $8,127 \div 6=\underline{1,354 \mathrm{R} 3}$
(12) $6,155 \div 3=$ $\qquad$

13 What strategies did you use to estimate the quotients? Explain.
Answers will vary. Possible answer: I rounded each dividend to the nearest hundred.
Then used basic facts and place value to estimate the quotient.

14 Check one of your answers by solving it with a different strategy. Show your work. Answers will vary.

Write the missing numbers in the boxes to make each equation true.
Possible answers are shown.
$1 \frac{2}{4} \times \frac{\boxed{4}}{\overline{4}}=\frac{8}{16}$
(2) $\frac{2}{3} \times \frac{\boxed{6}}{\overline{-6}}=\frac{12}{18}$
(3) $\frac{5}{6} \times \frac{5}{\overline{5}}=\frac{25}{30}$

4 $\frac{2}{3} \times \frac{3}{3}=\frac{6}{9}$
5 $\frac{3}{8} \times \frac{5}{\boxed{5}}=\frac{15}{40}$
6 $\frac{5}{6} \times \frac{2}{\underline{2}}=\frac{10}{12}$
$7 \frac{5}{8} \times \frac{3}{\overline{-3}}=\frac{15}{24}$
$8 \frac{2}{\boxed{3}} \times \frac{4}{4}=\frac{8}{12}$
$9 \frac{7}{8} \times \frac{2}{2}=\frac{14}{16}$

10 Which strategies did you use to solve the problems? Explain why.
Answers will vary. Possible answer: I looked at the numbers I was given. If I knew two numbers for the numerators I could use multiplication facts to figure out the third number, or apply the same strategy to the denominators. Then, since the second fraction should have the same numerator and denominator, I can use that information to fill in the other boxes.

# Using Common Numerators and Denominators 

## Compare the fractions. Write $<,>$, or $=$.

$1 \frac{3}{4}>\frac{3}{8}$
$2 \frac{2}{3}<\frac{4}{5}$
(3) $\frac{1}{5}=\frac{2}{10}$
$4 \frac{2}{10}<\frac{23}{100}$
$5 \frac{7}{8}>\frac{3}{4}$
$6 \frac{7}{12}<\frac{5}{6}$
$7 \frac{10}{12}=\frac{5}{6}$
$8 \frac{53}{100}>\frac{1}{2}$
$9 \frac{2}{8}<\frac{9}{12}$
$10 \frac{1}{6}<\frac{3}{12}$
$11 \frac{4}{5}>\frac{77}{100}$
$12 \frac{1}{3}<\frac{5}{12}$
$13 \frac{1}{4}>\frac{2}{12}$
$14 \frac{9}{10}=\frac{90}{100}$
$15 \frac{2}{3}>\frac{3}{6}$

16 Show a model you can use to check your answer to problem 12. Answers will vary. Possible model:
$\square$


## Understanding of Fraction

1 Label the number line and use it to show $\frac{3}{4}+\frac{3}{4}$.


Shade the area model to show $\frac{3}{4}+\frac{3}{4}$. Possible shading is shown.


Write the sum. $\frac{3}{4}+\frac{3}{4}=\frac{6}{4}$

2 Label the number line and use it to show $\frac{10}{8}-\frac{4}{8}$.


Show $\frac{10}{8}-\frac{4}{8}$ on the area model. Possible answer:


Write the difference. $\frac{10}{8}-\frac{4}{8}=\frac{6}{8}$

Write the missing numbers in the boxes to make each addition problem true.
(1) $\frac{1}{6}+\frac{4}{6}=\frac{5}{6}$
(2) $\frac{1}{8}+\frac{4}{8}=\frac{5}{8-8}$
(3) $\frac{1}{10}+\frac{4}{10}=\frac{5}{10}$
(4) $\frac{4}{12}+\frac{3}{12}=\frac{7}{12}$
(5) $\frac{4}{6}+\frac{3}{-6}=\frac{7}{6}$
$6 \frac{4}{3}+\frac{3}{\frac{3}{3}}=\frac{7}{3}$
$7 \frac{3}{\sqrt{4}}+\frac{2}{4}=\frac{5}{4}$
$8 \frac{3}{10}+\frac{2}{10}=\frac{5}{10}$
$9 \frac{3}{8}+\frac{2}{8}=\frac{5}{8}$

Answers will vary. Possible answers:
$10 \frac{2}{6}+\frac{2}{6}=\frac{4}{6}$
$\left(11 \frac{2}{5}+\frac{1}{5}=\frac{3}{5}\right.$
(12) $\frac{4}{10}+\frac{2}{10}=\frac{6}{10}$

13 Write a number from 1-12 in each box so that the addition problem is true.
$\begin{aligned} & \text { Answers will vary. } \\ & \text { Possible answer: }\end{aligned} \quad \frac{6}{12}+\frac{5}{12}=\frac{11}{12}$

## Subtracting Fractions

## Solve each problem.

1 Sammy has $\frac{4}{5}$ of his art project left to paint. He paints $\frac{2}{5}$ of the project. What fraction of the project is left to paint? $\frac{2}{5}$ of the project

3 Yuna plans to run 1 mile. She has run $\frac{7}{10}$ of a mile so far. What fraction of a mile does she have left to run? $\frac{3}{10}$ of a mile

2 Marianne has $\frac{6}{8}$ of a yard of green ribbon. She uses $\frac{3}{8}$ of a yard for a craft project. How much green ribbon is left? $\frac{3}{8}$ of a yard

4 Alex and Brady are helping to pack books into a box. Together they pack $\frac{7}{12}$ of the books. Alex packs $\frac{4}{12}$ of the books. What fraction of the books does Brady pack? $\frac{3}{12}$ of the books

Find three ways to decompose each fraction into a sum of other fractions with the same denominator.
$1 \frac{3}{4}=\frac{1}{4}+\frac{1}{4}+\frac{\frac{1}{4}}{}$
(2) $\frac{7}{8}=\frac{6}{8}+\frac{\frac{1}{8}}{2}$
$\frac{7}{8}=\frac{5}{8}+\frac{\frac{2}{8}}{}$
$\frac{7}{8}=\frac{4}{8}+\underline{\frac{3}{8}}$
$\frac{3}{4}=\frac{2}{4}+\frac{\frac{1}{4}}{2}$
$\frac{3}{4}=\frac{1}{4}+\frac{\frac{2}{4}}{}$

Answers will vary. Possible answers:
$3 \frac{6}{5}=\frac{\frac{3}{5}}{}+\frac{3}{5}$
$\frac{6}{5}=\frac{2}{5}+\frac{\frac{2}{5}}{\frac{2}{5}}$
$\frac{6}{5}=\frac{2}{5}+\frac{2}{5}+\frac{\frac{1}{5}}{}+\frac{\frac{1}{5}}{}$
$5 \frac{9}{12}=\underline{\frac{4}{12}}+\frac{5}{12}$
$\frac{9}{12}=\frac{3}{12}+\frac{3}{12}+\frac{\frac{1}{12}}{3}+\frac{\frac{1}{12}}{3}+\frac{\frac{1}{12}}{}$
$6 \frac{8}{10}=\underline{\frac{4}{10}}+\frac{4}{10}$
$\frac{9}{12}=\underline{\frac{3}{12}}+\underline{\frac{3}{12}}+\underline{\frac{3}{12}}$
$4 \frac{5}{6}=\frac{\frac{2}{6}}{2}+\frac{3}{6}$
$\frac{5}{6}=\frac{1}{6}+\frac{\frac{2}{6}}{\frac{2}{6}}$
$\frac{5}{6}=\frac{1}{6}+\frac{1}{6}+\frac{\frac{1}{6}}{6}+\frac{\frac{1}{6}}{\frac{1}{6}}$

$$
\begin{aligned}
& \frac{8}{10}=\frac{2}{10}+\frac{3}{10}+\frac{\frac{1}{10}}{\frac{3}{10}}+\frac{\frac{3}{10}}{\frac{8}{10}}+\underline{\frac{2}{10}} \\
&
\end{aligned}
$$

7 Describe your strategy for finding the missing numbers.
Possible answer: I thought about ways to make the numerator from smaller numbers. The denominator stays the same in each set of problems.

