9.5 Estimating Products Page 1

Student Book pages 322–324

GOAL
Choose when and how to estimate.

Checking

1. Natasha’s school has 2 Grade 5 teams.
   Each team has 31 players.
   Estimate to answer the following question:
   Are there more than 50 Grade 5 players?

   I can use a number close to 31, such as 30.
   30 + 30 is the same as 30 \times \underline{\underline{\text{______}}}.
   I can multiply \underline{\underline{\text{______}}} \times \underline{\underline{\text{______}}} to get an estimate.

2. How would you estimate each product?

   a) 9 \times 48
      \(\text{Circle}\) the number closest to 48. 40 50
      I would estimate by multiplying 9 \times \underline{\underline{\text{______}}}.

      Explain another way you would estimate 9 \times 48.

   b) 4 \times 355
      \(\text{Circle}\) the number closest to 355. 350 360
      I would estimate by multiplying \underline{\underline{\text{______}}} \times \underline{\underline{\text{______}}}.

      Explain another way you would estimate 4 \times 355.
(a) 3 \times 3 = 9 \text{ because Joanth's brother save at least $900.}

(b) 200 \text{ dumplings.}

(c) 76 \text{ is close to } 7\text{6, so } 3 \times 3 = 9 \text{ is the number, so I will}

(d) There are 3 plates with 76 dumplings on each plate. 7 \times 3 = 21 \text{ dumplings.}

(e) Joanth has $287 in his bank account.

(f) There are 3 plates with 76 dumplings on each plate. 7 \times 3 = 21 \text{ minutes.}

(g) No, I will have to burn all my CDs all over again if my estimate is off.

(h) Are 7 CDs enough to burn 500 minutes of music?

(i) I can hold 7 minutes of music.

(j) Name: ________________________

(k) Date: ________________________

Answer: Then answer.

6. Decide whether you can estimate to answer or if you need to calculate the exact.

Practising

9.5 Estimating Products Page 2
Name: ___________________________ Date: ________________

9.5 Estimating Products Page 1
Student Book pages 322–324

GOAL
Develop strategies for estimating.

Problem
3 soccer teams were playing in a tournament.
There were 9 players on each team.

About how many players were playing in the tournament?

There are different strategies for estimating.

Practise using easier numbers.
There are 8 teams with 9 players.
You are trying to estimate $8 \times 9$.

Think about easier numbers to use.
9 is close to 10.
Think about $8 \times 10$.
You can count by 10s.
$8 \times 10 = \underline{80}$
Since you changed 9 to 10, there are a few less than _______ players altogether.

Try the strategy again.
What if there were 6 teams with 7 players on each team?
Think about easier numbers to use.
6 is close to 5.
Think about $5 \times 7$.
You can count by 5s.
$5 \times 7 = \underline{35}$
Since you changed the 6 to 5, there are a few more than _______ players altogether.
Reflecting

$6 \times 6$ is $6 \times 6$

$1 \times 4$ is $1 \times 4$

$8 \times 6$ is $6 \times 8$

$7 \times 9$ is a little less than $7 \times 10$

Use easier numbers to estimate the products.

Date: __________________________ Name: ________________________
Estimating Products

Choose when and how to estimate.

1. Estimate each product. Show your work.
   a) \( 5 \times 44 \)
   b) \( 8 \times 62 \)
   c) \( 9 \times 28 \)
   d) \( 7 \times 31 \)
   e) \( 3 \times 82 \)
   f) \( 4 \times 73 \)

2. Decide whether you can estimate to answer. Then answer.
   a) Lang, Ken, and Joshua each have $42. Do they have enough money to buy a second-hand bike for $150?

   b) Each bookcase contains 64 books. There are 4 bookcases. Are there more than 200 books?

   c) 5 cartons hold 54 juice boxes each. Are there enough juice boxes for 250 students?
<table>
<thead>
<tr>
<th>x</th>
<th>84</th>
<th>x</th>
<th>47</th>
<th>x</th>
<th>37</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>31</td>
<td>14</td>
<td>67</td>
<td>11</td>
<td>42</td>
</tr>
<tr>
<td>12</td>
<td>53</td>
<td>9</td>
<td>61</td>
<td>6</td>
<td>63</td>
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<tr>
<td>7</td>
<td>77</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>x</th>
<th>74</th>
<th>x</th>
<th>52</th>
<th>x</th>
<th>68</th>
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<td>5</td>
<td>33</td>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td>47</td>
<td>2</td>
<td>42</td>
<td>1</td>
<td>78</td>
</tr>
</tbody>
</table>

Estimate by rounding to the nearest 10.

The estimated product is 3000.

3000
50 x 60 = 3000
5 x 6 = 30
Remember:

Multiply
Round each number

Estimate the product of 51 and 62.
WORD PROBLEM
Ray bought 7 packs of juice boxes for the class picnic. There were 24 juice boxes in a pack. How many juice boxes did Ray buy?

BASICS BOX
There are many methods for multiplying numbers with more than one digit. Here are two that Ray (and you) can use:

Traditional

24
× 7
28

Multiply ones

24
× 7
28

Regroup 2 tens

2
24
× 7
8

Multiply tens

2
24
× 7
140

Partial Products

24
× 7
168 juice boxes

Multiply ones

4
× 7
28

Multiply tens

20
× 7
140

Add both products

140
+ 28
168 juice boxes

PRACTICE
Solve each problem using both methods. Show your work.

1. 36
   x 8
   30 + 6
   x 8
   (30 + 6) (30 + 6)

2. 52
   x 9

JOURNAL
Which multiplication method do you find easiest to work with? Why?
12. \( 400 \times 800 = \) 10,000

11. \( 40 \times 80 = \) 3,200

10. \( 300 \times 50 = \) 15,000

9. \( 30 \times 50 = \) 1,500

8. \( 76 \times 2 = \) 152

7. \( 33 \times 3 = \) 99

6. \( 41 \times 8 = \) 328

5. \( 93 \times 3 = \) 279

4. \( 68 \times 6 = \) 408

3. \( 50 \times 7 = \) 350

2. \( 25 \times 3 = \) 75

1. \( 13 \times 4 = \) 52

Find the products. Show your work.

**Multiplication Methods**

**Date:**

**Name:**
9.6 Communicating about Solving Problems  Page 1
Student Book pages 328-329

GOAL
Explain your thinking when solving a problem.

Checking

1. For every year a bear lives, it ages about 4 human years.
   Carolyn calculated the age of a 19-year-old bear in human years.
   1. I made sure I understood the problem.

<table>
<thead>
<tr>
<th>A bear this old...</th>
<th>...is like a human this old</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

   2. I made a plan. I calculated $19 \times 4$.
   3. I carried out the plan. $19 \times 4 = 76$.
   4. I looked back to check. 76 looks right because $20 \times 4 = 80$, so $19 \times 4$ must be less.

a) What did Carolyn explain well?
   Be specific about each step she did.
   Hint: Look at Desmond’s comments in the Student Book.

   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________

b) What questions would you ask Carolyn to improve her communication?
   For example: How did you know $19 \times 4 = 76$?

   ____________________________________________
   ____________________________________________
   ____________________________________________
   ____________________________________________
I know my answer is reasonable because: Step 4: Look Back

I found out:  

This is how I calculated the answer.

Step 3: Carry Out the Plan

I plan to:  

Step 2: Make a Plan

<table>
<thead>
<tr>
<th>21</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
</tbody>
</table>

...is like a human this old

A dog this old...

I can make a table to show what I know.

I have to find out how old a 1-year-old dog is in human years.

I know a 1-year-old dog is... years.

Step 1: Understand the Problem

How old is a 13-year-old dog in human years?

For every year a dog lives, it ages about 7 human years.

Practising
9.6 Communicating about Solving Problems Page 1
Student Book pages 328–329

**GOAL**

Explain your thinking when solving a problem.

**Problem**

Horses age more quickly than humans.
For every year a horse lives, it ages 3 human years.
Ken wondered how old his 8-year-old horse would be in human years.

How can Ken explain how he solved the problem?

**Understand the Problem**

What do you know?

---

<table>
<thead>
<tr>
<th>A horse this old...</th>
<th>...is like a human this old</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

**Make a Plan**

Multiply to find the answer.
How do you know that you can multiply?
9.6 Communicating about Solving Problems

Your thinking:

Did you explain detail?

Did you show the right amount of:

Checklist

Why or why not?

Do you think you have given a good explanation of how you solved the horse problem?

Look at the Communication Checklist:

How could Ken have explained his plan more clearly?

Reflecting

Is your answer reasonable?

Look back to check

What is the age of the horse?

Carry out the plan

Date

Name
Mid-Chapter Review—Frequently Asked Questions
STUDENT BOOK PAGE 326

Q: How can you multiply a 2-digit number by a 1-digit number?

A: ________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

Q: How can you estimate the product of a 2-digit number and a 1-digit number?

A: ________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________

________________________________________________________________
3. Ken earned 72 points on the first day of the summer fair. How many points will he win the prize for 290 points? Explain your solution.

If he earns the same number of points each day for 3 days, how many points will he earn in total?

How many brownies did they bring in total?

46 brownies to the school bake sale. How many brownies did each boy bring?

2. Jade, Cole, Michael, and Haley each bought a new pair of shoes. How much money can she earn in 5 weeks?

1. Emily earns $28 each week for doing yard work. Explain your thinking when solving a problem.

Solving Problems

Communicating About
9.7 Multiplying 2-Digit Numbers Page 1

You will need
- base ten blocks
- a place value chart

GOAL
Multiply 2-digit numbers by 1-digit numbers using expanded form.

Problem
Diane lives near a beach.
She collected 14 shells in 1 week.
She wants to collect the same number of shells each week.

How many shells will Diane have in 4 weeks?

There are 4 groups of 14 shells after 4 weeks.
When there are equal groups, you can multiply.

Step 1: Estimate first.
4 × 14 is about 4 × 10 = ________.
I predict that Diane will have more than ________ shells.

Step 2: Make 4 groups of 14 with base ten blocks.
Record them using the expanded form.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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</tbody>
</table>

14 × 4
10 + 4
× 4
Suppose that you multiplied the ones first. Would the product be the same? Explain.

Reflecting

Diane will have ______ shells in 4 weeks.

<table>
<thead>
<tr>
<th>(tens)</th>
<th>(number of ones)</th>
<th>(number of tens)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>h × h + 10</td>
<td>h × h</td>
</tr>
</tbody>
</table>

Step 1: Complete the multiplication.

<table>
<thead>
<tr>
<th>(number of tens)</th>
<th>0</th>
<th>+</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>h</td>
<td>h</td>
<td>h</td>
<td>h + 10</td>
</tr>
<tr>
<td>h × h + 10</td>
<td>h</td>
<td>h</td>
<td>h + 10</td>
</tr>
</tbody>
</table>

Step 3: Multiply to show the number of tens first:

9.7 Multiplying 2-Digit Numbers

Date: __________________________ Name: __________________________
9.7 Multiplying 3-Digit Numbers

GOAL
Multiply 3-digit numbers by 1-digit numbers using expanded form.

Checking


   a) \(300 + 20 + 7\) is the same as \(327\)
      \[\times 5\]

      Make 5 groups of ______ with base ten blocks.
      Do not regroup.
      Fill in the rest of the question.
      \(300 + 20 + 7\)
      \[\times 5\]
      \[
      \begin{array}{c}
      1500 \text{ (number of hundreds)} \\
      + 100 \text{ (number of tens)} \\
      + 7 \text{ (number of ones)} \\
      \hline
      \end{array}
      \]
      (total altogether)

   b) Model 5 groups of 327 with base ten blocks.
      Remember, do not regroup.
      \(327\)
      \[\times 5\]
      \[
      \begin{array}{c}
      35 \text{ (number of ones)} \\
      + 150 \text{ (number of tens)} \\
      \hline
      \end{array}
      \]
      (total altogether)
\[ \frac{32}{7} \times 32 = \] 

So I can estimate by multiplying \( \frac{32}{7} \times 32 \) is close to \( 7 \times 32 \). 

\[ \frac{5}{181} \times 181 = \] 

So I can estimate by multiplying \( \frac{5}{181} \times 181 \) is close to 2. 

\( \text{Total altogether} \) 
\( \text{Number of ones} \) 
\( \text{Number of tens} \) 
\( \text{Number of hundreds} \) 

\[ \frac{3}{986} = \] 

So I can estimate by multiplying \( \frac{3}{986} \) is close to 1. 

7. Estimate, then calculate.

Practising

9.7 Multiplying 3-Digit Numbers Page 2
Scaffolding for Lesson 7, Question 5

STUDENT BOOK PAGE 332


a) \[
\begin{array}{c}
361 \\
\times 7
\end{array}
\]
\[
\begin{array}{c}
2100 \\
420 \\
+ 7
\end{array}
\]
\[
2527
\]
\[
\begin{array}{c}
300 + 60 + 1 \\
\times 7
\end{array}
\]
\[
\begin{array}{c}
2100 \\
420 \\
+ 7
\end{array}
\]
\[
2527
\]

b) \[
\begin{array}{c}
421 \\
\times 4
\end{array}
\]
\[
\begin{array}{c}
400 \\
20 \\
\times 4
\end{array}
\]
\[
\begin{array}{c}
1600 \\
80 \\
+ 4
\end{array}
\]
\[
1684
\]

21, 42, 7

hurd, two, more.

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3. Estimate to check your answer for each part of Question 2.

- (a) $5 \times 316$
- (b) $6 \times 624$
- (c) $2 \times 472$
- (d) $7 \times 294$
- (e) $3 \times 254$

2. Multiply:

- $4 \times 197$
- $3 \times 122$

1. Multiply:

- $2 \times 7$
- $500 + 60 + 7$
- $2 \times 567 = 1134$
- $3 \times 242 = 726$

You can use expanded form to multiply 3-digit numbers by 1-digit numbers using expanded form.
9.8 Multiplying Another Way Page 1
Student Book pages 334–337

GOAL
Multiply, regrouping as you go.

Checking
1. Follow these steps to calculate.

a) $7 \times 62$

Step 1: Multiply by making 7 groups of 62 using base ten blocks.
Sketch the groups on a place value chart.
How many ones? _______
Regroup the ones as _______ tens _______ ones.
How many tens? _______
Regroup the tens as _______ hundreds _______ tens.
How many hundreds? _______

Step 2: Count all the blocks together.
There are _______ hundreds _______ tens _______ ones.
$7 \times 62 = _______

b) $7 \times 145$

Step 1: Multiply by making 7 groups of 145 using base ten blocks.
Sketch the groups on a place value chart.
How many ones? _______
Regroup the ones as _______ tens _______ ones.
How many tens? _______
Regroup the tens as _______ hundreds _______ tens.
How many hundreds? _______
Regroup the hundreds as _______ thousand _______ hundreds.
The product is

There are

Regroup if you need to.

Count the blocks.

×

Use your answers to write the multiplication equation.

How much do the blocks in 1 group equal?

How many are there?

(Circle the groups.)

5. Write the multiplication equation for this model.

Practising

= 145

Step 2: Count all the blocks together.

9.8 Multiplying Another Way
9.8 Multiplying Another Way Page 1
Student Book pages 334–337

GOAL
Multiply, regrouping as you go.

Problem
Michael has 56 hockey cards. Pedro has twice as many.

How many cards does Pedro have?

Twice as many means 2 times as many.
Multiply 56 cards by 2.

Step 1: Estimate $2 \times 56$ first.
I know that $2 \times 50 = \underline{100}$.
So Pedro has more than ______ cards.

Step 2: Multiply by making 2 groups of 56.
Use base 10 blocks.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
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<tbody>
<tr>
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</table>

$2 \times 56 = \underline{112}$

Step 3: There are $2 \times 6$ ones.
$2 \times 6 = 12$
Regroup 12 ones as 1 ten, 2 ones.

<table>
<thead>
<tr>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
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<tbody>
<tr>
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</table>

$2 \times 56 = \underline{112}$
How did using the place value chart help you to multiply 2-digit numbers?

Reflecting

So, Pedro has 2 x 50 = 100 + 2 = 2
100 + 10 + 2

Step 5: Add.

<table>
<thead>
<tr>
<th></th>
<th>Ones</th>
<th>Tens</th>
<th>Hundreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>5 6</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Regroup: 1 tens as 1 hundred, 1 ten.
There are 11 tens.
There are 2 x 5 tens + 1 ten.

9.8 Multiplying Another Way Page 2
Scaffolding for Lesson 8, Question 7


a) 

<p>| | | |</p>
<table>
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<tbody>
<tr>
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<td>0</td>
<td>5</td>
</tr>
<tr>
<td>x</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

- Step 1 Estimate $4 \times 305$ is about $4 \times ____$.  
- Step 2 Multiply by making ____ groups of ____.

Sketch the groups on a place value chart.

<table>
<thead>
<tr>
<th>Thousands</th>
<th>Hundreds</th>
<th>Tens</th>
<th>Ones</th>
</tr>
</thead>
<tbody>
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</table>

- Step 3 Multiply the ones. Regroup if you need to.  
- Step 4 Multiply the tens. Regroup if you need to.  
- Step 5 Multiply the hundreds. Regroup if you need to.

b) 

<p>| | | |</p>
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<td>2</td>
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<td>0</td>
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<td>x</td>
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c) 

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<tbody>
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<td>2</td>
<td>9</td>
<td>3</td>
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<td>x</td>
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d) 

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<tr>
<td>4</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>x</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>
1. Multiply. Regrouping as you go.

### At-Home Help

3 × 3 = 9
2 × 11 = 22
3 × 4 = 12

### Multiply, Regrouping

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>7</th>
</tr>
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<td>3</td>
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<td>7</td>
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<tr>
<th></th>
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<th>1</th>
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<tr>
<td>2</td>
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<td></td>
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<tr>
<td>1</td>
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<td>7</td>
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<th>1</th>
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<th>5</th>
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### GOAL

Multiplying Another Way
GOAL
Choose whether to estimate or calculate, and explain your multiplication method.

Problem
Sometimes you can find an answer using estimation.
Sometimes you can solve a problem using mental math.
Sometimes you need materials to solve a problem.

How can you solve each problem?

1. You and your friend are buying 2 bottles of water.
   1 bottle of water costs $1.25.
   You want to make sure you have enough money to buy 2 bottles.
   Would you estimate or calculate the cost of 2 bottles?
   Explain or show what you would do.

2. There are 45 pencils in a box.
   You want to know if there are more than 150 pencils in 3 boxes.
   Would you estimate or calculate the number of pencils?
   Explain or show what you would do.
How did you decide when to estimate?

Reflecting

Explain or show what you would do.

Would you estimate or calculate the number of eggs?

If you buy 3 cartons of eggs, will you have more or less than 30 eggs?

4. The grocery store sells eggs in cartons of 12.

Explain or show what you would do.

Would you estimate or calculate the number of students?

How many students will be at the tournament altogether?

Each school is bringing 100 students.

3. 5 schools are getting together for a chessers tournament.

9.9 Choosing a Method for Multiplying
9.9 Choosing a Method for Multiplying Page 1

Student Book pages 338–340

**GOAL**

Choose whether to estimate or calculate, and explain your multiplication method.

**Checking**

1. In 2004:
   - 33 babies were born in Saskatchewan every 24 hours
   - 44 babies were born in Alberta every 10 hours

Would you estimate or calculate to find the following answers? Why?

   a) How many Saskatchewan babies were born in 5 days?
      I need to find out the exact answer so I would ________________.

   b) Were more than 1000 babies born in Alberta each month?
      I would ________________ because ____________________________.

2. How would you calculate in each situation?

   **Hint:** Choose mental math, expanded form, or base ten blocks.

   a) the number of Saskatchewan babies born in 6 days
      1 day = 33 babies, so 6 days = ________ × ________
      I would ________________

   b) the number of Alberta babies born in 90 hours
      10 hours = 44 babies, so 90 hours = ________ × ________
      I would ________________
Practising

9.9 Choosing a Method for Multiplying

3. Would you answer each question using mental math or base ten blocks?

a) There are 250 sheets in 1 pack of paper. Are there more than 500 sheets in 3 packs?

\[ 1 \text{ pack} = 250 \quad \times \quad 3 \text{ packs} = 750 \]

I would _______ because _______.

b) How many days are there in 2 years?

\[ 1 \text{ year} = 365 \quad \times \quad 2 \text{ years} = 730 \]

I would _______ because _______.

c) Aaron has 3 times as much money as Raven. Raven has $127.

\[ \text{Raven} = 127 \quad \times \quad \text{Aaron} = 381 \]

I would _______ because _______.

6. Alana earns $9 an hour babysitting. Which could you answer by estimating?

A: the amount Alana earns in 10 hours
B: the amount Alana earns in 15 hours
C: the number of hours needed to earn $90
D: about how long it would take Alana to earn $250

I could estimate letter _______ because _______.

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Choosing a Method for Multiplying

GOAL
Choose whether to estimate or calculate, and explain your multiplication method.

1. Jade can string 76 beads every hour. Which question could you answer by estimating?
   A. How many beads can Jade string in 10 hours?
   B. How many beads can Jade string in 12 hours?
   C. Would Jade use more than 200 beads in 3 hours?
   D. How many hours would it take for Jade to use 380 beads?

2. How would you answer each question: by estimating, using mental math, or using base ten blocks?
   a) A skateboard costs $325. Can you buy 2 skateboards for $600?
   b) Joshua earned 279 points at the school fair. Diane earned 3 times as many points. How many points did Diane earn?
   c) Aneela can type 42 words in a minute. How many words can she type in 5 minutes?

3. Matt and Hailey want to solve this problem:
   A box of crayons holds 54 crayons. About how many crayons are in 9 boxes?
   Matt says, “I will use mental math to solve the problem. $9 \times 50 = 450$, and $9 \times 4 = 36$. The answer is $450 + 36 = 486.$”
   Hailey says, “I will estimate to solve the problem. 9 is close to 10. $10 \times 54 = 540$, so the answer is about 540.”
   Can both answers be correct? Explain your answer.
Q: Why might you estimate a product instead of calculating it?

A:

Q: How do you decide whether to multiply using mental math or using base ten blocks?

A:

Q: How can you multiply a 3-digit number by a 1-digit number?

A:

Student Book Page 342

Chapter Review—Frequently Asked Questions

Date: 

Name:
9.10 Creating Multiplication Problems
Student Book page 341

GOAL
Create and solve multiplication problems.

How can you create a story about multiplication?

Step 1: Understand the Problem
What do you have to do?

Step 2: Make a Plan
What is your story going to be about?

What kinds of multiplication problems will be in the story?

What strategies will you use to find the answer to these multiplication problems?

Step 3: Carry Out the Plan
Write the pages of your story. Show how you solved the multiplication problems.

Step 4: Look Back
How do you know you made multiplication problems in your book?
Create and solve multiplication problems.

Problem

How can you create a story about multiplication?

His story told the answer to the problem.
He also wrote a multiplication fact.
He included a picture and a multiplication story.
He wrote a page for a book about multiplication.

End your story with the answer to the multiplication problem.
Write your story.
Write the multiplication fact that goes with your story.

Hint: First think of equal groups of things for a story.
Chapter 9
Lesson 10
Creating Multiplication Problems

GOAL
Create and solve multiplication problems.

1. Fill in the blanks to write your own multiplication problems.
   a) _____ × 26
      Diane made 26 cookies every day. How many cookies did she make in _____ days?
      Diane made ______ cookies.
   b) 3 × ______
      Ken earns $_______ every week. How much does he earn in 3 weeks?
      Ken earns $_______ in 3 weeks.
   c) ______ × ______
      Jade made ______ necklaces with ______ beads in each necklace. How many beads did Jade use?
      Jade used ______ beads.

2. Write a multiplication problem that uses the numbers 4 and 213. Solve your problem.
1. What is the product of $5 \times 300$?

2. Which number sentence does this array show?

3. What is the expanded form of 8537?

4. Matt made 6 models. Each model used 29 small sticks. About how many small sticks did Matt use?

5. Jade used 251 beads for each of 4 necklaces.

6. Which multiplication equation does this model show?

A. $2484$
B. $2804$
C. $4244$
D. $2840$

Select the correct answer:

Test Yourself

Date: ___________________________

Name: _____________________________