

Grade 5 Operations and Computation Goal: Use mental arithmetic, paper-and-pencil algorithms, and calculators to solve problems involving the addition and subtraction of whole numbers, decimals, and signed numbers; describe the strategies used and explain how they work.

# Unit 2: Addition and subtraction of whole numbers and decimals.

**Addition Using the Partial Sums Method**

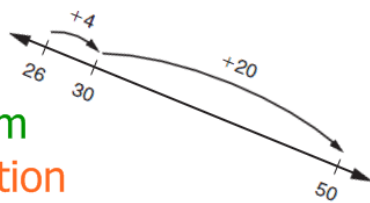
	233
	+ 158
Add the 100s:	200 + 100 → 300
Add the 10s:	30 + 50 → 80
Add the 1s:	3 + 8 → 11
Add the partial sums:	300 + 80 + 11 → 391

**Subtraction Using the Trade First Method**

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>100s</th><th>10s</th><th>1s</th></tr> <tr><td>3</td><td>5</td><td>2</td></tr> <tr><td>- 1</td><td>6</td><td>4</td></tr> </table> <p>Look at the 1s place. You cannot remove 4 ones from 2 ones.</p>	100s	10s	1s	3	5	2	- 1	6	4	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>100s</th><th>10s</th><th>1s</th></tr> <tr><td></td><td>4</td><td>12</td></tr> <tr><td>3</td><td><del>5</del></td><td><del>2</del></td></tr> <tr><td>- 1</td><td>6</td><td>4</td></tr> </table> <p>So trade 1 ten for 10 ones. Now look at the 10s place. You cannot remove 6 tens from 4 tens.</p>	100s	10s	1s		4	12	3	<del>5</del>	<del>2</del>	- 1	6	4	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>100s</th><th>10s</th><th>1s</th></tr> <tr><td></td><td>14</td><td></td></tr> <tr><td>2</td><td><del>5</del></td><td>12</td></tr> <tr><td><del>3</del></td><td><del>5</del></td><td><del>2</del></td></tr> <tr><td>- 1</td><td>6</td><td>4</td></tr> <tr><td>1</td><td>8</td><td>8</td></tr> </table> <p>So trade 1 hundred for 10 tens. Now subtract in each column.</p> <p>352 - 164 = 188</p>	100s	10s	1s		14		2	<del>5</del>	12	<del>3</del>	<del>5</del>	<del>2</del>	- 1	6	4	1	8	8
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**Remember to check your work in some way.**

- draw base ten blocks
- use ballpark estimates
- use a different algorithm
- use the opposite operation



hundreds	tens	ones
3	2	4
- 1	6	7

$$437 + 398 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 28.5 + 89.06$$

$$56.9 + 3435.6 = \underline{\hspace{2cm}}$$

$$909 - 657 = \underline{\hspace{2cm}}$$

$$\underline{\hspace{2cm}} = 38.2 - 33.33$$

$$439.2 - 77.7 = \underline{\hspace{2cm}}$$

Grade 5 Measurement Goal: Describe relationships among U.S. customary units of length; among metric units of length; and among U.S. customary units of capacity.

# Unit 2: Convert between U.S. customary units of length.

Look at this chart.

Student	Height of Plant
Suzy	$\frac{1}{2}$ yard
Meg	15 inches
Rita	1 foot, 4 inches

Which list shows the students in order from the student with the shortest plant to the student with the tallest plant?

- A. Rita, Suzy, Meg
- B. Suzy, Meg, Rita
- C. Rita, Meg, Suzy
- D. Meg, Rita, Suzy

Mike's grandfather likes to tell the story of how he would walk 36,000 inches to school barefoot in 3 feet of snow. Mike rolled his eyes and said, "Grandpa, that is only \_\_\_\_\_ feet or \_\_\_\_\_ yards. That is not really that far, and I am sure your mom bought you boots."

Mrs. Z wanted to go on a biking trip around New Hampshire. She was looking at a map of NH and noticed the scale said 1 inch = 50 miles. She planned out a bike route that was 6 inches long. How many miles will she ride on her trip? \_\_\_\_\_  
She plans to ride about 25 miles a day. How many days will it take for her to go on her trip? \_\_\_\_\_

Grade 5 Numbers and Numeration Goal: Read and write whole numbers and decimals; identify places in such numbers and the values of the digits in those places; use expanded notation to represent whole numbers and decimals.

# Unit 2 : Identify place value of digits.

Write an 8-digit numeral with  
4 in the hundred thousands place,  
6 in the tenths place,  
0 in the hundredths place,  
1 in the hundreds place,  
9 in the ten-thousands place,  
7 in the ones place  
and 3 in the other places.

\_\_\_\_\_ , \_\_\_\_\_ . \_\_\_\_\_

What number is 12 tens more than 30,605?

- A. 30,617
- B. 30,725
- C. 31,805
- D. 42,605

Which digit of this number will change when ten thousand is added to 24,150?

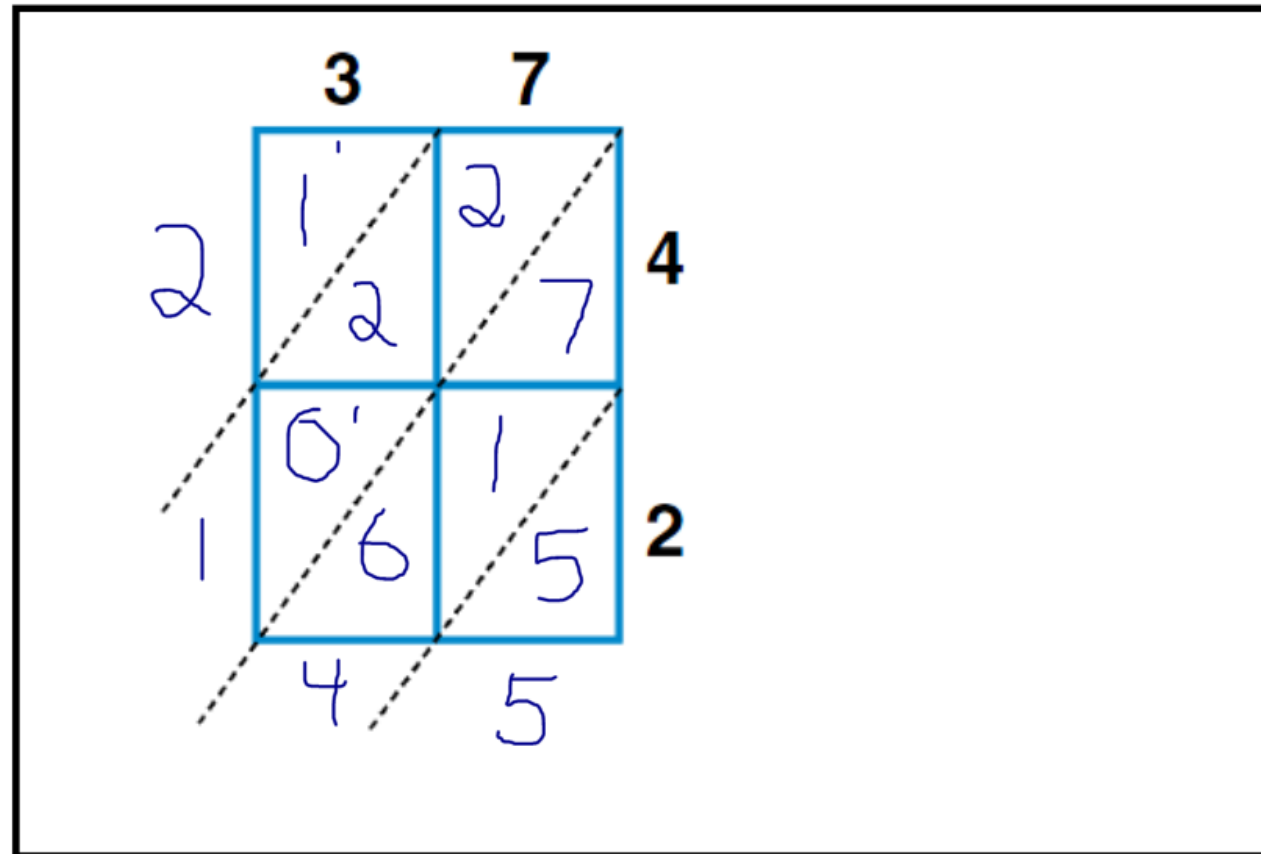
- A. 2
- B. 4
- C. 1
- D. 5

Grade 5 Operations and Computation Goal: Use mental arithmetic, paper-and-pencil algorithms, and calculators to solve problems involving the multiplication of whole numbers and decimals and the division of multidigit whole numbers and decimals by whole numbers; express remainders as whole numbers or fractions as appropriate; describe the strategies used and explain how they work.

# Unit 2: Identify multiplication errors.

Identify the errors in the each of following problem and correct them.

$$\begin{array}{r}
 49 \\
 * 63 \\
 \hline
 240 \\
 540 \\
 120 \\
 27 \\
 \hline
 927
 \end{array}$$



Grade 5 Operations and Computation Goal: Make reasonable estimates for whole number and decimal addition, subtraction, multiplication, and division problems and fraction and mixed number addition and subtraction problems; explain how the estimates were obtained.

# Unit 2: Explain usefulness of making an estimate.

**Explain** why making a magnitude estimate of the answer before solving the problem is helpful.

Which is the **closest estimate** of  $11 \times 287$ ? Explain your estimation strategy.

- a. 2,000
- b. 2,200
- c. 3,000
- d. 3,600

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# Unit 2: Make magnitude estimates.

$$25 * 37$$

10s	100s	1,000s	10,000s
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How I estimated

*Solve. Show your work below.*

$$5.6 * 409$$

10s	100s	1,000s	10,000s
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How I estimated

*Solve. Show your work below.*

Grade 5 Data and Chance Goal: Describe events using certain, very likely, likely, unlikely, very unlikely, impossible and other basic probability terms; use more likely, equally likely, same chance, 50-50, less likely, and other basic probability terms to compare events; explain the choice of language.

# Unit 2: Describe given



## numerical probabilities

## using words or phrases.

**Write a phrase that describes the chance the event will happen.**

It will get dark tonight. \_\_\_\_\_

I will grow wings. \_\_\_\_\_

It might rain. \_\_\_\_\_

The Patriots **will win** their next game.

\_\_\_\_\_

Each of the letters of the word RIVERBED is written on a separate card and placed in a bag. If one letter is chosen at random, which statement is true?

A. The probability of choosing an R is greater than choosing an E.

B. The probability of choosing an E is greater than choosing an R.

C. The probability of choosing an R or an E is the same.

D. There is not enough information given.