DECIMALS PRACTICE BOOKLET

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HOW TO USE THIS UNIT BOOKLET

This *Unit 2 – Decimals Practice Booklet* contains the worksheet practice sets that need to be completed throughout the unit.

1) Read through the notes and examples for each skill also using your entrance tasks as a reference.
2) Complete the first practice set *ON ANOTHER SHEET OF PAPER WITH THE APPROPRIATE HEADING* copying each problem and showing ALL WORK.
3) When finished, self correct the selected answers using the back of this booklet. Once the practice set is complete and corrected, turn into Mr. Walz and then you can test on that skill.
   a. If you meet standard (pass) on that skill, move on to the next skill.
   b. If you do not meet standard (do not pass), complete practice set #2 for that skill before you can retest.
      i. It is key to practice doing each skill correctly and showing all work since that is the only way to meet the standard.
4) Extension activities are available in the back of this booklet for students to apply these skills in real-world situations and creative explorations. Students can complete these activities at any point when they are ahead of the skill that the class is working on.

HOW FINAL GRADE IS CALCULATED

1) Student grades are based on the percentage of skills passed (the total number of Washington State Math Standards met). There are 25 skills in Unit 2 that need to be passed. These 25 skills will be added to the previous skills from other units.
   a. Example: Student A tried 25 skills but only met standard on 19. The final grade would be 76% ($19 \div 25$).

APPROPRIATE HEADING

SKILL/PRACTICE SET   NAME
STANDARD NUMBER   PERIOD
                                                DATE

1) 0.24 ☐ 0.02   2) $\begin{array}{r} 0.0123 \\ -\ 0.0028 \\ \hline \end{array}$ 3)

Make sure to copy each problem on to your paper and SHOW ALL WORK!!!

SKILL 1: Representing Decimals and Place Value
Standard **4.2.A** *OBJECTIVE: Represent decimals through thousandths.*

DECIMALS represent parts of a whole number and are referred to as rational numbers. Place value is the value of where a digit is in a decimal number. Standard form is the usual way to write a decimal, such as 3.52. Word form is writing the decimals in words, such as three and fifty-two hundredths.

EXAMPLE A:
Name the place value of the underlined digit.

14.2<u>3</u>4

3 is in the hundredths place value

EXAMPLE B:
Write the decimal is word form.

14.234

Fourteen and two hundred thirty-four thousandths

EXAMPLE C:
Write the decimal is standard form.

Nine and fifteen hundredths

9.15

Place-Value Chart							
thousands	hundreds	tens	ones	tenths	hundredths	thousandths	ten-thousandths
0	1	2	8	0	7	3	2

HINTS: The decimal point is represented by the word AND. Treat the decimal part as its own number and add the place value of the final digit.

SKILL 1: PRACTICE SET #1
Name the place value of the underlined digit

1) 3.<u>4</u>5   2) 5<u>6</u>.789   3) 3<u>3</u>2.7

4) 17.76<u>8</u>   5) 5.<u>6</u>7   6) 8.7<u>4</u>5

Write the decimal is word form.

7) 2.3   8) 18.76

9) 20.657   10) 1.85

Write the decimal is standard form.

11) five and thirty-five hundredths   12) ten and three tenths

13) one hundred fifteen and fifteen thousandths   14) fifty-two and eight tenths

15) two hundred seventy and seventy-six hundredths   16) one and two tenths

SKILL 1: PRACTICE SET #2

Name the place value of the underlined digit

1) 4<u>5</u>.6   2) 87.<u>34</u>   3) 324.5<u>6</u>

4) 2.3<u>29</u>   5) 64.38<u>9</u>   6) 8.<u>34</u>

Write the decimal is word form.
7) 4.7   8) 22.89

9) 45.329   10) 0.27

Write the decimal is standard form.

11) sixty-seven and one hundred three thousandths 12) seven and twenty-five hundredths

13) two hundred ten and thirty-six hundredths   14) ten and five tenths

15) two and three hundred forty-eight thousandths 16) seventy-two and two tenths

SKILL 1: PRACTICE SET #3

Name the place value of the underlined digit

1) 56.2<u>3</u>   2) <u>7</u>2.198   3) 2.<u>43</u>

4) 4.87<u>6</u>   5) <u>3</u>32.87   6) 94.<u>1</u>

Write the decimal is word form.

7) 5.89   8) 37.65

9) 2.768   10) 46.1

Write the decimal is standard form.

11) twenty-five and one tenth   12) thirty and sixty-two hundredths

13) twenty-four and one hundred nineteen thousandths 14) ninety-nine and nine hundredths

15) five and eight tenths   16) thirteen and thirteen thousandths

SKILL 2: Graph Decimals on a Number Line
Standard **4.2.A** *OBJECTIVE: Represent decimals on a number line.*

A number line shows you a "picture view" of what a number is. You can visually see where your numbers are, and what other numbers are nearby.

EXAMPLE: Place 3.2 and 5.67 on a number line.
1) Figure out the whole numbers that are above and below the decimals numbers given.
    a. 3.2 is between 3 and 4; 5.67 is between 5 and 6
2) Draw a line with arrows on the ends to indicate that it goes on forever.
3) Make little marks to indicate where the whole numbers are and label them (make sure there are enough spaces to show all the numbers that you are given to graph)
4) Put a dark circle on the decimal numbers that are given by estimating using benchmarks such as one-half.
    a. 3.2 is closer to 3; 5.67 is closer to 6

***The trick with decimals is to make sure they are correctly between the whole numbers and estimate which number they would be the closest to. Also, remember from before, you do not need to start at 0. Just show a few numbers greater and less than the numbers you need to graph. ***

SKILL 2: PRACTICE SET #1

Draw a number line for each problem and place the numbers on it.

1) Graph 5.3   2) Graph 3.8

3) Graph 9.75   4) Graph 11.12

5) Graph 14.9   6) Graph 4.45

7) Graph 19.02   8) Graph 23.8

9) Graph 34.5 and 36.1   10) Graph 87.98 and 88.23

11) Graph 67.4 and 67.9   12) Graph 9.23 and 11.5

SKILL 2: PRACTICE SET #2

Draw a number line for each problem and place the numbers on it.

1) Graph 10.6

2) Graph 4.2

3) Graph 8.41

4) Graph 17.67

5) Graph 22.7

6) Graph 35.8

7) Graph 21.07

8) Graph 65.48

9) Graph 102.5 and 104.1

10) Graph 9.97 and 11.23

11) Graph 78.6 and 79.1

12) Graph 24.7 and 25.3

SKILL 2: PRACTICE SET #3

Draw a number line for each problem and place the numbers on it.

1) Graph 4.12

2) Graph 6.47

3) Graph 11.95

4) Graph 5.7

5) Graph 19.46

6) Graph 42.13

7) Graph 73.8

8) Graph 73.2

9) Graph 2.34 and 4.8

10) Graph 16.34 and 18.13

11) Graph 82.5 and 84.1

12) Graph 35.8 and 36.3

Standard **6.1.A** *OBJECTIVE: Compare non-negative decimals using the number line, lists, and the symbols <, >, or =.*

EXAMPLE:

Example 1 Use > or < to compare 68.563 and 68.5603.

| First, line up the decimal points. | Then, starting at the left, find the first place the digits differ. | Compare the digits. | Since 3 > 0, |

68.563

68.5603

$3 > 0$ $68.563 > 68.5603$

So, 68.563 is greater than 68.5603.

SKILL 3: PRACTICE SET #1

Use >, <, or = to compare each pair of decimals.

1) 23.659 ● 22.659

2) 0.001 ● 0.01

3) 7 ● 7.0001

4) 4.08 ● 4.080

5) 50.031 ● 50.030

6) 18.01 ● 18.010

7) 8.8 ● 8.80

8) 0.3 ● 3.0

9) 0.06 ● 0.6

10) 5.10 ● 5.01

11) 4.42 ● 4.24

12) 0.009 ● 0.9

Use >, <, or = to compare each pair of decimals.

1) 0.24 ☐ 0.02   2) 0.2 ☐ 0.18   3) 0.02 ☐ 0.95

4) 1.44 ☐ 1.47   5) 1.2 ☐ 1.17   6) 0.36 ☐ 0.37

7) 0.82 ☐ 0.84   8) 0.95 ☐ 0.66   9) 1.13 ☐ 1.12

10) 0.84 ☐ 0.81   11) 0.8 ☐ 0.8   12) 0.18 ☐ 0.39

SKILL 3: PRACTICE SET #3

Use >, <, or = to compare each pair of decimals.

2) 0.7 ☐ 0.70   2) 0.11 ☐ 0.68   3) 0.7 ☐ 0.63

4) 0.69 ☐ 0.66   5) 0.37 ☐ 0.44   6) 1.52 ☐ 1.52

7) 0.34 ☐ 0.33   8) 0.73 ☐ 0.73   9) 0.08 ☐ 0.6

10) 1.15 ☐ 1.16   11) 1.52 ☐ 1.5   12) 0.88 ☐ 0.91

Standard **6.1.A** *OBJECTIVE: Order non-negative decimals using the number line/lists.*

EXAMPLE:

Example 2 Order 4.073, 4.73, 4.0073, and 4 from least to greatest.

First, line up the decimal points.	Annex zeros so that each has the same number of decimal places.	Use place value to compare and order the decimals.
4.073	4.0730	4.0000
4.73	4.7300	4.0073
4.0073	4.0073	4.0730
4	4.0000	4.7300

The order from least to greatest is 4, 4.0073, 4.073, and 4.73.

Another method to order decimals is to graph them on a number line. Here is the example above using the number line method.
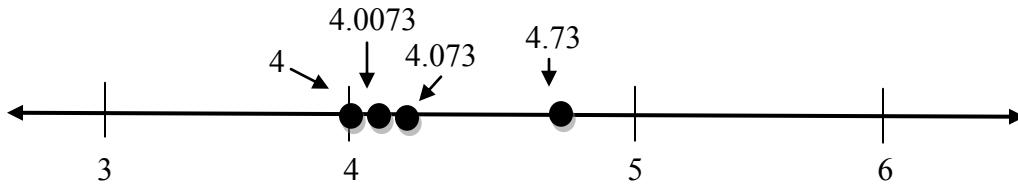
The order from least to greatest is 4, 4.0073, 4.073, 4.73

Read the directions carefully to make sure you are listing them in the order that is asked for.

SKILL 4: PRACTICE SET #1
Order each set of decimals from least to greatest.

1) 71, 71.04, 70.89, and 71.4

2) 0.006, 0.6, 0.060, 6

3) 456.73, 465.32, 456.37, 456.23

4) 33.6, 34.01, 33.44, 34

5) 78.203, 78.34, 78.023, 78.23

6) 1.25, 1.52, 1.02, 1.50

Order each set of decimals from greatest to least.

7) 3.01, 3.009, 3.09, 3.0001

8) 45.303, 45.333, 45.03, 45.0003, 45.003

9) 8.7, 8.77, 8.07, 8.777

10) 26.0999, 26.199, 25.99, 26.1909

11) 4.99, 4.001, 5.0, 4.01

12) 12.0012, 120.012, 12.012, 12.12

13) 3.5, 3.05, 3.55, 3.555

14) 45.0, 40.5, 40.09, 49.5

15) **LIBRARY** Books in the library are placed on shelves in order according to their Dewey Decimal numbers. Arrange these numbers in order from least to greatest.

Book Number
943.678
943.6
943.67

SKILL 4: PRACTICE SET #2

Order each set of decimals from least to greatest.

1) 67.39, 68.004, 67.039, 67.04

2) 15.0421, 14.52, 14.521, 15.421

3) 0.0012, 0.0211, 0.0002, 0.0022

4) 8.90, 8.91, 8.2

5) 4.3, 5.2, 5.02

6) 1.90, 1.94, 1.1

Order each set of decimals from greatest to least.

7) 2.08, 2.3, 1.9

8) 0.9, 0.08, 0.5

9) 6.04, 6.93, 7.01

10) 5.7, 5.8, 5.2

11) 6.31, 6.9, 6.25

12) 0.1, 0.4, 0.05

13) 3.6, 3.8, 3.90

14) 8.58, 8.03, 7.97

15) **ANALYZE TABLES** The following table shows the amount of money Sonia spent on lunch each day this week. Order the amounts from least to greatest and then find the median amount she spent on lunch.

Day	Mon.	Tue.	Wed.	Thu.	Fri.
Amount Spent ($)	4.45	4.39	4.23	4.53	4.38

SKILL 4: PRACTICE SET #3

Order each set of decimals from least to greatest.

1) 8.9, 8.25, 8.52

2) 6.40, 6.23, 6.21

3) 1.3, 1.1, 1.06

4) 4.37, 4.18, 4.08

5) 7.1, 7.6, 8.1

6) 3.1, 2.25, 2.2

Order each set of decimals from greatest to least.

7) 8.6, 8.37, 8.5

8) 1.90, 1.32, 1.26

9) 6.24, 6.20, 6.5

10) 7, 8.3, 7.05

11) 9.14, 9.69, 9.10

12) 8.7, 8.38, 8.15

SKILL 5: Decimal Addition
Standard **5.2.F** *OBJECTIVE: Fluently and accurately add decimals*

EXAMPLE:

Find the sum of 61.32 + 8.26.

$$\begin{array}{r} 61.32 \\ + 8.26 \\ \hline 69.58 \end{array}$$

1. Line up the decimal points
2. Add digits in the same place value position (think addition of whole numbers)
3. Decimal drops straight down to final answer.

Find the sum.
SKILL 5: PRACTICE SET #1

1) $\begin{array}{r} 2.3 \\ + 4.1 \end{array}$ 2) $\begin{array}{r} 132.346 \\ + \quad 0.486 \end{array}$ 3) $\begin{array}{r} \$5.63 \\ + 4.10 \end{array}$ 4) $\begin{array}{r} 113.7999 \\ + \quad 6.2001 \end{array}$

5) $0.2 + 5.64 + 9.005$ 6) $4.62 + 3.415 + 2.4$ 7) $5.4 + 6.5$

8) $6.0 + 3.8$ 9) $52.47 + 13.21$ 10) $91.64 + 19.5$

11) $0.675 + 28$ 12) **BIKE RIDING** The table shows the distances the members of two teams rode their bicycles for charity.

   a. How many total miles did Lori's team ride?

Distances Ridden for Charity			
Lori's Team		**Tati's Team**	
Lori	13.8 mi	Tati	13.6 mi
Marcus	11.8 mi	Luis	15.1 mi
Hassan	15.4 mi		

SKILL 5: PRACTICE SET #2

1) $\begin{array}{r} 0.581 \\ + 11 \end{array}$ 2) $\begin{array}{r} 77.09 \\ + 73.06 \end{array}$ 3) $\begin{array}{r} 54.7 \\ + 84.1 \end{array}$ 4) $\begin{array}{r} 6.3 \\ + 5.01 \end{array}$

5) $57.5 + 7.47$ 6) $2.1 + 78.15$ 7) $4.03 + 73.2$

8) $64.42 + 74.8$ 9) $5.21 + 4 + 0.2$ 10) $6.8 + 9.09$

11) $1.77 + 45.01$ 12) Evaluate $x + y$ if $x = 2.057$ and $y = 16.3$.

SKILL 5: PRACTICE SET #3

1) $\begin{array}{r} 3.49 \\ + 8.7 \end{array}$ 2) $\begin{array}{r} 5.94 \\ + 2.55 \end{array}$ 3) $\begin{array}{r} 6.56 \\ + 8.6 \end{array}$ 4) $\begin{array}{r} 18.08 \\ + 70.05 \end{array}$

5) $32.02 + 2.44$ 6) $3.9 + 80.17$ 7) $9.44 + 12.64$

8) $69.06 + 64.1$ 9) $8.6 + 19.23$ 10) $7.01 + 2.6$

SKILL 6: Decimal Subtraction
Standard 5.2.F *OBJECTIVE: Fluently and accurately subtract decimals*

EXAMPLE:

Find 2.65 − 0.2.

$$
\begin{array}{r}
2.65 \\
- \ 0.20 \\
\hline
2.45
\end{array}
$$

1. Line up the decimal points
2. Subtract digits in the same place value position (think subtraction of whole numbers)
3. Decimal drops straight down to final answer.

Find the difference.
SKILL 6: PRACTICE SET #1

1) $\begin{array}{r} \$13.67 \\ - \quad 7.19 \\ \hline \end{array}$

2) $\begin{array}{r} 0.0123 \\ - \ 0.0028 \\ \hline \end{array}$

3) $\begin{array}{r} 0.0058 \\ - \ 0.0026 \\ \hline \end{array}$

4) $\begin{array}{r} 5.00921 \\ -4.00013 \\ \hline \end{array}$

5) $12.36 - 4.081$

6) $216.8 - 34.055$

7) $7.8 - 4.5$

8) $17.46 - 6.79$

9) $74 - 59.29$

10) $87.31 - 25.09$

11) $19.75 - 12.98$

12) **BIKE RIDING** The table shows the distances the members of two teams rode their bicycles for charity.

    b. How many more miles did Lori's team ride than Tati's team?

Distances Ridden for Charity	
Lori's Team	**Tati's Team**
Lori 13.8 mi	Tati 13.6 mi
Marcus 11.8 mi	Luis 15.1 mi
Hassan 15.4 mi	

SKILL 6: PRACTICE SET #2

1) $\begin{array}{r} 81.44 \\ - \ 6.8 \\ \hline \end{array}$

2) $\begin{array}{r} 73.6 \\ - \ 8.4 \\ \hline \end{array}$

3) $\begin{array}{r} 32.03 \\ - \ 14.23 \\ \hline \end{array}$

4) $\begin{array}{r} 60.41 \\ - \ 8.8 \\ \hline \end{array}$

5) $4.69 \quad - \quad 2.2$

6) $9.43 \quad - \quad 3.52$

7) $3.31 \quad - \quad 0.78$

8) $8.45 \quad - \quad 0.22$

9) $9.76 \quad - \quad 2.85$

10) $\begin{array}{r} 4.982 \\ - \ 3.052 \\ \hline \end{array}$

11) $\begin{array}{r} 9.709 \\ - \ 1.539 \\ \hline \end{array}$

12) Evaluate $b - a$ if $a = 113.04$ and $b = 241.931$.

SKILL 6: PRACTICE SET #3

1) $\begin{array}{r} 39.01 \\ - \ 4.01 \\ \hline \end{array}$

2) $\begin{array}{r} 69.5 \\ - \ 28.99 \\ \hline \end{array}$

3) $\begin{array}{r} 8.91 \\ - \ 7.07 \\ \hline \end{array}$

4) $\begin{array}{r} 59.9 \\ - \ 29.8 \\ \hline \end{array}$

5) $4.91 \quad - \quad 2.58$

6) $7.54 \quad - \quad 0.61$

7) $0.88 \quad - \quad 0.46$

8) $9.2 \quad - \quad 7.03$

9) $8.53 \quad - \quad 7.57$

10) $\begin{array}{r} 9.348 \\ - \ 1.717 \\ \hline \end{array}$

SKILL 7: Estimate Decimal Sums and Differences

Standard 5.2.G *OBJECTIVE: Estimate sums and differences of decimals to approximate solutions to problems and determine reasonableness of answers.*

Front-End Estimation	Estimate by adding or subtracting the values of the digits in the front place..

EXAMPLE:

Estimate 14.07 + 43.22 using front-end estimation.

Add the front digits.

$$14.07$$
$$+ \ 43.22$$
$$5$$

Add the next digits.

$$14.07$$
$$+ \ 43.22$$
$$57.00$$ An estimate for 14.07 + 43.22 is 57.

HINT: Add or subtract the whole numbers together and ignore the decimal portion to estimate. Estimation is used to check the reasonableness of your final answer. It is used in word problems too.

Estimate each sum or difference using front-**end estimation. Since it's an estimation there should be no exact answer given.**
SKILL 7: PRACTICE SET #1

1) 2.3
   $+ \ 4.1$

2) 0.0123
   $- \ 0.0028$

3) $\$5.63$
   $+ \ 4.10$

4) 5.00921
   -4.00013

5) $0.2 + 5.64 + 9.005$

6) $216.8 - 34.055$

7) $5.4 + 6.5$

8) $17.46 - 6.79$

9) $52.47 + 13.21$

10) $87.31 - 25.09$

11) $0.675 + 28$

12) SHOPPING Miriam bought a basketball for $24.99 and basketball shoes for $47.79. About how much did Miriam spend on the ball and shoes?

SKILL #7: PRACTICE SET #2

1) 18.938
   $- 3.57$

2) 7.007
   $+ 20.7$

3) 61.152
   $+ 7.6$

4) 8.8
   $- 5.1$

5) $24.22 - 4.75$

6) $37.177 + 1.6$

7) $3.03 - 1.46$

8) $61.7 - 54.2$

9) $8.2 + 7.8 + 7.2 + 7.99$

10) $3.555 + 9.914$

SKILL #7: PRACTICE SET #3

1) 51.62
   $+ \ 6.58$

2) $\$233.10$
   $- \ \ 23.62$

3) 820.1
   $+ \ \ 3.2$

4) 4.57360
   $- \ 0.58256$

5) $9.1 - 6.6$

6) $54.896 + 9.07$

7) $43.8 - 6.3$

8) $\$102.34 + \$23.00 + \$32.67$

9) $7.09 - 4.03$

10) $44.124 + 6.04$

SKILL 8: Unit 2 Review 1

This is a review of all the standards you have worked on so far this year. Use your entrance tasks to help if needed.

SKILL 8: PRACTICE SET #1

1) Simplify.
$$20 + 1.2 - 12.4$$

2) Graph 8.21 on a number line

3) Evaluate.
$$x + 13.4; x = 7.89$$

4) Graph 11.67 on a number line

5) Simplify.
$$5 \times 3 - 4.23$$

6) Evaluate.
$$y - 8.4; y = 19.23$$

7) Simplify.
$$4.3 - 2.5 + 9.45$$

8) Evaluate.
$$12.12 + a; a = 4.87$$

9) Multiply. 145×9

10) Multiply. 23×16

SKILL 8: PRACTICE SET #2

1) Simplify.
$$14.23 + 34.58$$

2) Graph 14.32 on a number line

3) Evaluate.
$$x + 6.7; x = 9.4$$

4) Graph 0.45 on a number line

5) Simplify.
$$6.7 - 2 \times 3$$

6) Evaluate.
$$45.34 - t; t = 32.89$$

7) Simplify.
$$5.7 + 4.3 - 2.19$$

8) Evaluate.
$$16.3 + b - c; b = 4.32; c = 9.78$$

9) Multiply. 21×45

10) Multiply. 56×32

SKILL 8: PRACTICE SET #3

1) Simplify.
$$57.68 - 32.91$$

2) Graph 54.7 on a number line

3) Evaluate.
$$x - 2.4; x = 11.23$$

4) Graph 2.2 on a number line

5) Simplify.
$$15.2 + 2 \times 4$$

6) Evaluate.
$$6.43 + c; c = 13.4$$

7) Simplify.
$$12.8 - 4.5 + 6.8$$

8) Evaluate.
$$t + 4.3 - 5.9; t = 19.2$$

9) Multiply. 243×7

10) Multiply. 62×48

Standard **6.1.F** *OBJECTIVE: Fluently and accurately multiply non-negative decimals.*

---

1. Set-up multiplication problem ignoring all the decimal points.
2. Complete long multiplication (Unit 1; Skill 3).
3. Count the number of decimals digits (those to the right of the decimal point) in both numbers.
4. Move decimals that many places to the left in final answer (you made need to add zeroes to complete this).

EXAMPLE A:

Calculate 0.0005×8.

Solution:

0.0005 ← 4 decimal places in the number being multiplied

$\times \quad 8$

0.0040 ← 4 decimal places in the answer

Thus, $0.0005 \times 8 = 0.004$

EXAMPLE B:

Calculate 47.4×45.

Solution:

47.4 ← 1 decimal place in the number being multiplied

$\times \quad 45$

2370

$1896\,0$ {Ignore decimal points for the interim calculations}

2133.0 ← 1 decimal place in the answer

Thus, $47.4 \times 45 = 2133$

Example 1   **Find 6.25×5.**

Method 1   Use estimation.

Round 6.25 to 6.

$6.25 \times 5 \to 6 \times 5$ or 30

$\quad 1\,2$

$\quad 6.25$ Since the estimate is 30

$\underline{\times \quad 5}$ place the decimal point

$\quad 31.25$ after 31.

Method 2   Count decimal places.

$\quad 6.25$ ← There are two places to the right of the decimal point.

$\underline{\times \quad 5}$

$\quad 31.25$

↑ Count the same number of decimal places from right to left.

Multiply.
SKILL 9: PRACTICE SET #1

1) 8.03×3

2) 2×0.012

3) 6×12.6

4) 0.0008×9

5) 2.32×10

6) 0.8×6

7) 0.7×4

8) 1.9×5

9) 3.4×9

10) 5×0.05

11) 0.0027×15

12) 0.0186×92

Evaluate each expression.

13) $5.02h$ if $h = 36$

14) $21k$ if $k = 24.09$

SKILL 9: PRACTICE SET #2

1) 6×3.04

2) 13×2.5

3) 1.006×4

4) 4.007
$\times \quad 4$

5) 8.01
$\times \quad 5$

6) 61.8
$x \, 5$

7) 1.58
$x \, 2$

8) 45.08
$x \, 3$

9) 3.3
$x \, 86$

10) 4.3
$x \, 84$

11) $92.2 \; x \; 9$

12) $3.5 \; x \; 17$

13) Evaluate $231a$ if $a = 3.6$

14) Evaluate $42.3t$ if $t = 110$.

SKILL 9: PRACTICE SET #3

1) $2.39 \; x \; 2$

2) $87.07 \; x \; 8$

3) $5 \; x \; 4.1$

4) 3.9
$x \, 3$

5) 2.2
$x \, 3$

6) 7.04
$x \, 6$

7) 2.58
$x \, 53$

8) 1.8
$x \, 5$

9) 76.6
$x \, 9$

10) 75.1
$x \, 7$

11) 2.9
$x \, 65$

Standard **6.1.F** *OBJECTIVE: Fluently and accurately multiply non-negative decimals.*

---

1. Set-up multiplication problem ignoring all the decimal points.
2. Complete long multiplication (Unit 1; Skill 3).
3. Count the number of decimals digits (those to the right of the decimal point) in both numbers.
4. Move decimals that many places to the left in final answer (you made need to add zeroes to complete this).

EXAMPLE A:

Calculate 0.8×0.9.

Solution:

$$0.8 \longleftarrow \text{1 decimal place}$$
$$\times 0.9 \longleftarrow \text{1 decimal place}$$
$$\overline{0.72} \longleftarrow \text{2 decimal places in the answer}$$

Thus, $0.8 \times 0.9 = 0.72$

EXAMPLE B:

Calculate 0.78×0.5.

Solution:

$$0.78 \longleftarrow \text{2 decimal places}$$
$$\times \ 0.5 \longleftarrow \text{1 decimal place}$$
$$\overline{0.390} \longleftarrow \text{3 decimal places in the answer}$$

Thus, $0.78 \times 0.5 = 0.39$

EXAMPLE C:

$$\begin{array}{r} 0.023 \\ \times \ 2.3 \\ \hline 69 \\ 46 \ \ \\ \hline 0.0529 \end{array}$$

$0.023 \longleftarrow$ three decimal places

$\times \ 2.3 \longleftarrow$ one decimal place

$0.0529 \longleftarrow$ Annex a zero to make four decimal places.

Multiply.

SKILL 10: PRACTICE SET #1

1) 7.2×2.1

2) 4.3×8.5

3) 2.64×1.4

4) 5.01×11.6 5) 9.001×4.2 6) 0.3×0.9

7) 2.6×1.7 8) 1.09×5.4 9) 4.9×0.02

10) 17.2×12.86 11) **5.2×6.13**   12) 0.8×0.9

13) **MINING** A mine produces 42.5 tons of coal per hour. How much coal will the mine produce in 9.5 hours?

SKILL 10: PRACTICE SET #2

1)
$$\begin{array}{r} 0.8 \\ \times\, 0.1 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 0.3 \\ \times\, 0.2 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 0.4 \\ \times\, 0.6 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 0.48 \\ \times\, 0.5 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 0.2 \\ \times\, 0.06 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 0.67 \\ \times\, 0.9 \\ \hline \end{array}$$

7) 0.93×6.8 8) 3.007×6.1 9)
$$\begin{array}{r} 0.307 \\ \times\, 0.6 \\ \hline \end{array}$$

10) 16.25×1.3 11) 2.6×5.46 12)
$$\begin{array}{r} 0.447 \\ \times\, 0.4 \\ \hline \end{array}$$

13)
$$\begin{array}{r} 114.53 \\ \times\, 6.2 \\ \hline \end{array}$$

14) Evaluate $2.9w$ if $w = 0.046$.

SKILL 10: PRACTICE SET #3

1)
$$\begin{array}{r} 0.6 \\ \times\, 0.1 \\ \hline \end{array}$$

2)
$$\begin{array}{r} 0.2 \\ \times\, 0.5 \\ \hline \end{array}$$

3)
$$\begin{array}{r} 0.4 \\ \times\, 0.8 \\ \hline \end{array}$$

4)
$$\begin{array}{r} 0.33 \\ \times\, 0.3 \\ \hline \end{array}$$

5)
$$\begin{array}{r} 3.3 \\ \times\, 3.7 \\ \hline \end{array}$$

6)
$$\begin{array}{r} 54.02 \\ \times\, 0.4 \\ \hline \end{array}$$

7) 3.5×24.09 8) 0.31×2.9 9)
$$\begin{array}{r} 0.447 \\ \times\, 0.4 \\ \hline \end{array}$$

Standard **6.1.F** *OBJECTIVE: Fluently and accurately multiply non-negative decimals.*

---

1. Set-up multiplication problem ignoring all the decimal points.
2. Complete long multiplication (Unit 1; Skill 3).
3. Count the number of decimals digits (those to the right of the decimal point) in both numbers.
4. Move decimals that many places to the left in final answer (you made need to add zeroes to complete this).

EXAMPLE A:

Calculate 3.24×0.67.

Solution:

```
  3.24   ←——— 2 decimal places
× 0.67   ←——— 2 decimal places
  ─────
  2268
 19440
 ──────
 2.1708  ←——— 4 decimal places in the answer
```
Thus, $3.24 \times 0.67 = 2.1708$

EXAMPLE B:

Calculate 2.731×0.32

Solution:

2.731 ←——— 3 decimal places

$\times 0.32$ ←——— 2 decimal places

5462

$+81930$

0.87392 ←——— 5 decimal places in the answer

Thus, the final answer is 0.87392

Multiply.

SKILL 11: PRACTICE SET #1

1) 0.56×0.03

2) $\begin{array}{r} 0.07 \\ \times\, 0.01 \\ \hline \end{array}$

3) $\begin{array}{r} 0.49 \\ \times\, 0.04 \\ \hline \end{array}$

4) 5.02×1.07

5) $\begin{array}{r} 0.41 \\ \times\, 0.13 \\ \hline \end{array}$

6) $\begin{array}{r} 0.809 \\ \times\, 0.12 \\ \hline \end{array}$

7) 2.07×2.008

8) 26.02×2.006

9)
$$
\begin{array}{r}
0.84 \\
\times\ 0.005 \\
\hline
\end{array}
$$

10) 14.23×8.21

11)
$$
\begin{array}{r}
0.04 \\
\times\ 0.082 \\
\hline
\end{array}
$$

12)
$$
\begin{array}{r}
0.52 \\
\times\ 0.02 \\
\hline
\end{array}
$$

13) **SHOPPING** Ms. Morgan bought 3.5 pounds of bananas at $0.51 a pound and 4.5 pounds of pineapple at $1.19 a pound. How much did she pay for the bananas and pineapple?

SKILL 11: PRACTICE SET #2

1)
$$
\begin{array}{r}
0.51 \\
\times\ 0.75 \\
\hline
\end{array}
$$

2)
$$
\begin{array}{r}
0.46 \\
\times\ 0.72 \\
\hline
\end{array}
$$

3)
$$
\begin{array}{r}
0.92 \\
\times\ 0.01 \\
\hline
\end{array}
$$

4)
$$
\begin{array}{r}
0.326 \\
\times\ 0.001 \\
\hline
\end{array}
$$

5)
$$
\begin{array}{r}
0.077 \\
\times\ 0.09 \\
\hline
\end{array}
$$

6)
$$
\begin{array}{r}
0.04 \\
\times\ 0.527 \\
\hline
\end{array}
$$

7) 2.52×0.15

8)
$$
\begin{array}{r}
0.306 \\
\times\ 0.74 \\
\hline
\end{array}
$$

9)
$$
\begin{array}{r}
0.192 \\
\times\ 0.06 \\
\hline
\end{array}
$$

10)
$$
\begin{array}{r}
0.89 \\
\times\ 0.765 \\
\hline
\end{array}
$$

11)
$$
\begin{array}{r}
0.009 \\
\times\ 0.074 \\
\hline
\end{array}
$$

12)
$$
\begin{array}{r}
0.116 \\
\times\ 0.387 \\
\hline
\end{array}
$$

SKILL 11: PRACTICE SET #3

1)
$$
\begin{array}{r}
0.38 \\
\times\ 0.38 \\
\hline
\end{array}
$$

2)
$$
\begin{array}{r}
0.09 \\
\times\ 0.09 \\
\hline
\end{array}
$$

3)
$$
\begin{array}{r}
0.55 \\
\times\ 0.04 \\
\hline
\end{array}
$$

4)
$$
\begin{array}{r}
0.772 \\
\times\ 0.08 \\
\hline
\end{array}
$$

5)
$$
\begin{array}{r}
0.326 \\
\times\ 0.001 \\
\hline
\end{array}
$$

6)
$$
\begin{array}{r}
0.03 \\
\times\ 0.54 \\
\hline
\end{array}
$$

7)
$$
\begin{array}{r}
0.041 \\
\times\ 0.26 \\
\hline
\end{array}
$$

8)
$$
\begin{array}{r}
0.164 \\
\times\ 0.32 \\
\hline
\end{array}
$$

9)
$$
\begin{array}{r}
0.108 \\
\times\ 0.06 \\
\hline
\end{array}
$$

SKILL 12: Decimal Multiplication and Area Model
Standard **6.1.B**
OBJECTIVE: Represent multiplication decimals using area models and the number line, and connect each representation to the related equation..

EXAMPLE A: 3 x 0.2

1) 0.2 represents 2 bars out of 10
2) 3 x 0.2 represents 2 bars shaded 3 times
3) So, 3 x 0.2 = 0.6 because, with 3 groups of 0.2,
   six-tenths of a whole (0.6) is shaded.

0.2 + 0.2 + 0.2
3 groups of 0.2
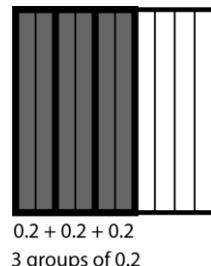
EXAMPLE B: 0.2 x 0.3

1) Represent the number 0.2 (2 bars shaded out of 10)
2) Cut 0.2 into tenths (ten equal parts)
3) Shade three of the tenths to show 0.3
4) Since each small square is 0.01 of the whole and six of
   the small squares are marked, the diagonally
   marked section represents 0.06, so 0.3 x 0.2 = 0.06.
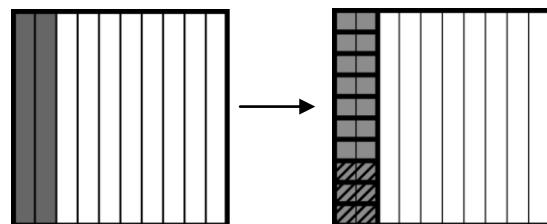
SKILL 12: PRACTICE SET #1
Complete the problems using the area model already provided.

1) 0.4×0.3
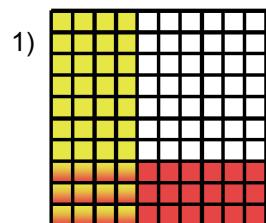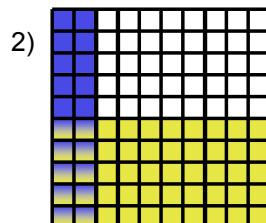
2) 0.2×0.5

Copy and complete the area model to represent each problem.

3) 0.7×0.6

4) 0.1×0.5

5) 0.4×2

6) 0.5×0.6
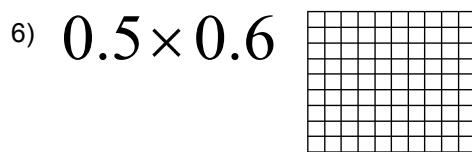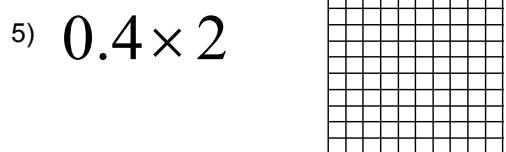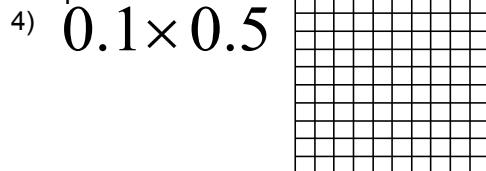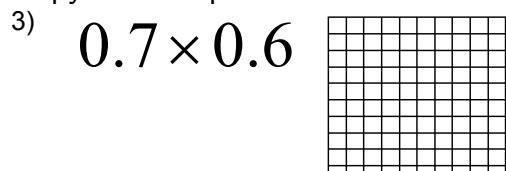
MULTIPLY DECIMALS USING ANY WAY YOU HAVE LEARNED.

7) 0.45×3

8) 0.5×0.12

9) 0.8×2

10) 0.2×4

11) 0.6×0.75 12) 0.9×5

Complete the problems using the area model already provided.
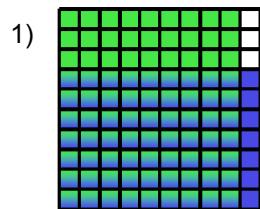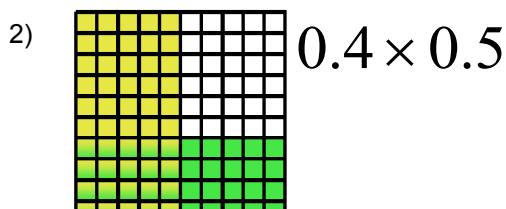
1) 0.9×0.7 2) 0.4×0.5

Copy and complete the area model to represent each problem.
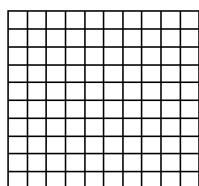
3) 0.2×0.3 4) 0.1×0.8
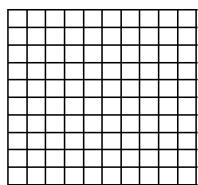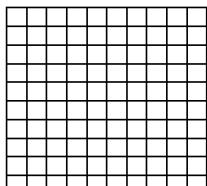
5) 0.3×3 6) 0.5×0.3
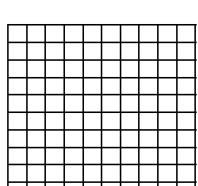
MULTIPLY DECIMALS USING ANY WAY YOU HAVE LEARNED.

7) 0.62×3 8) 0.7×0.26

9) 0.9×4 10) 0.1×7

11) 0.5×0.34 12) 0.43×6

Complete the problems using the area model already provided.
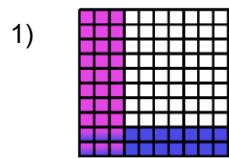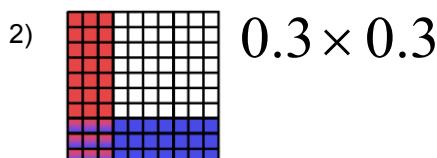
1) 0.2×0.3 2) 0.3×0.3

MULTIPLY DECIMALS USING ANY WAY YOU HAVE LEARNED.

3) 0.7×0.4 4) 0.1×0.2

5) 0.2×4 6) 0.5×0.9

7) 0.25×5 8) 0.3×1.4

9) 0.8×0.39 10) 0.4×7

SKILL 13: Decimal Multiplication by Power of 10

Standard **6.1.E** *OBJECTIVE:Multiply decimals by 1000, 100, 10, 1, 0.1, 0.01, & 0.001.*

If you are multiplying by 10, 100 or 1000…
        then move the decimal to the RIGHT the same number as there are zeroes.
If you are multiplying by 0.1, 0.01, or 0.001…
        then move the decimal to the LEFT the same number as there are zeroes.

EXAMPLE	ANSWER	WHAT HAPPENED TO THE DECIMAL?
2.1 x 10	21	moved one place right
2.1 x 100	210	moved two places right
2.1 x 1000	2100	moved three places right
2.1 x 0.1	.21	moved one place left
2.1 x 0.01	.021	moved two places left
2.1 x 0.001	.0021	moved three places left

EXAMPLE A: **Find $6.3 \times 1,000$.**

Method 1 Use paper and pencil.

$$\begin{array}{r} 1,000 \\ \times\ 6.3 \\ \hline 3\ 000 \\ 60\ 000\ \\ \hline 6,300.0 \end{array}$$

Method 2 Use mental math.

Move the decimal point to the right the same number of zeros that are in 1,000 or 3 places.

$6.3 \times 1,000 = 6,300$

Multiply using the rules for powers of 10.
SKILL 13: PRACTICE SET #1

1) 2.32×10

2) 6.8×100

3) 5.2×1000

4) 1.412×100

5) $3.7 \times 1,000$

6) 4.23×100

7) 2.6×10

8) 9.4×0.1

9) 2.4×0.01

10) 0.4×0.1

11) 96.23×0.001

12) 137×0.01

13) 0.697×0.1

14) **SCHOOL** Jaimie purchases 10 pencils at the school bookstore. They cost $0.30 each. How much did she spend on pencils?

SKILL 13: PRACTICE SET #2

1) 82.3×100

2) 0.31×10

3) 8.3×0.1

4) 724.3×0.001

5) 0.812×1000

6) 12.5×0.01

7) 3.9×0.1

8) 0.75×10

9) 19.34×0.01

10) 12×100

11) 214.2×0.001

12) 4.32×1000

13) 0.845×100

14) 31.4×0.1

SKILL 13: PRACTICE SET #3

1) 13.2×0.1

2) 16.8×10

3) 1.5×100

4) 19.43×1000

5) 4.2×0.01

6) 0.5×0.001

7) 0.92×100

8) 0.3×1000

9) 7.1×0.01

SKILL 14: Estimate Decimal Products
Standard **6.1.C**
OBJECTIVE: Estimate products of decimals.

Estimate by rounding each decimal to the nearest whole number
EXAMPLE: 8.345 x 4.983
8.345 rounds to 8; 4.983 rounds to 5
Rounding the factors gives 8 x 5 = 40
Therefore, a good estimate of the product of the decimal numbers 8.345 and 4.983 is 40.

HINT: Use the tenths digit to round your whole number. If it is 4 or less, keep the whole number the same. If it is 5 or above, increase the whole number by 1. Estimation is used to check the reasonableness of your final answer. It is used in word problems too.

Estimate each product using rounding. **Since it's an estimation there should be no exact answer given.**

SKILL 14: PRACTICE SET #1

1) 7.63 x 9.98   2) 2.33 x 4   3) 3.1259 x 49.8783   4) 1.69 x 9

5) 2.6×1.7 6) 2.64×1.4 7) 26.02×2.006

8) 5.01×11.6 9) 17.2×12.86 10) 14.23×8.21

11)   0.35   12) 7.2×2.1 13)   0.837
    x 0.06   x 0.67

SKILL 14: PRACTICE SET #2

1) 2.3×1.21 2) 0.93×6.8 3) 0.003×2.9 4) 3.007×6.1

5) 2.6×5.46 6) 11.04×6.18 7) 14.83×16.7

8) 7.45   9)   0.02   10)   4.35
   x 6.9   x 0.74   x 429.5

11) 5.83   12)   0.95   13) 9.001×4.2
   x 7.1   x 0.69

SKILL 14: PRACTICE SET #3

1) 1.2×2.1 2) 2.5×6.7 3) 8.54×3.27 4) 6.5×0.04

5) 16.25×1.3 6) 3.5×24.09 7) 27.1×10.105

8) 4.3×8.5 9)   5.83   10)   3.7
                          x 6.3   x 76.57

SKILL 15: Unit 2 Review 2

This is a review of all the standards you have worked on so far this year. Use your entrance tasks to help if needed.

SKILL 15: PRACTICE SET #1

1) Simplify.
   $2.3 \times 0.7 + 1.2$

2) Compare.
   $45.67 \square 45.76$

3) Evaluate.
   $3x; x = 4.3$

4) Compare.
   $0.253 \square 0.243$

5) Simplify.
   $5.2 \times 5 - 7.34$

6) Evaluate.
   $y \times 4.3; y = 0.4$

7) Simplify.
   $(8.12 - 3.23) \times 100$

8) Evaluate.
   $12.12a; a = 0.001$

9) Divide. $9\overline{)333}$

10) Divide. $360 \div 15$

SKILL 15: PRACTICE SET #2

1) Simplify.
   $1.4 \times 0.6 + 4.7$

2) Compare.
   $0.59 \square 0.594$

3) Evaluate.
   $5x; x = 12.3$

4) Compare.
   $0.358 \square 0.321$

5) Simplify.
   $21.6 \times 9 - 6.43$

6) Evaluate.
   $y \times 4.8; y = 3.2$

7) Simplify.
   $(10.4 + 3.76) \times 0.001$

8) Evaluate.
   $42.34a; a = 100$

9) Divide. $12\overline{)576}$

10) Divide. $504 \div 8$

SKILL 15: PRACTICE SET #3

1) Simplify.
   $7.5 \times 1.3 - 2.59$

2) Compare.
   $2.6 \square 2.60$

3) Evaluate.
   $1.4x; x = 0.34$

4) Compare.
   $1.45 \square 1.32$

5) Simplify.
   $7.2 \times 4 + 4.65$

6) Evaluate.
   $y \times 0.03; y = 253.7$

7) Simplify.
   $(21.4 - 19.24) \times 0.1$

8) Evaluate.
   $0.0843a; a = 1000$

9) Divide. $5\overline{)5380}$

10) Divide. $990 \div 22$

Standard **6.1.F** *OBJECTIVE: Fluently and accurately divide non-negative decimals.*

---

1. Set-up division problem.
2. Complete long division (Unit 1; Skill 4).
3. Place the decimal in the quotient above the decimal in the dividend (move it straight up into the answer)

EXAMPLE A: **Find $8.73 \div 9$.**

$$
\begin{array}{r}
0.97 \\
9\overline{)8.73} \\
-0 \\
\hline
8\,7 \\
-8\,1 \\
\hline
63 \\
-63 \\
\hline
0
\end{array}
$$

Place the decimal point directly above the decimal point in the quotient.

Divide as with whole numbers.

EXAMPLE B: **Find $8.58 \div 12$.**

$$
\begin{array}{r}
0.715 \\
12\overline{)8.580} \\
-8\,4 \\
\hline
18 \\
-12 \\
\hline
60 \\
-60 \\
\hline
0
\end{array}
$$

Place the decimal point.

Annex a zero to continue dividing.

Divide.
SKILL 16: PRACTICE SET #1

1) $7.2 \div 3$ 2) $9.2 \div 4$ 3) $4.5 \div 5$

4) $3.2 \div 4$ 5) $65.28 \div 12$ 6) $5.69 \div 7$

7) $8.6 \div 2$ 8) $7.5 \div 5$ 9) $22.5 \div 15$

10) $147.2 \div 8$ 11) $2.89 \div 4$ 12) $243.83 \div 32$

13) **SHOPPING** A 3-pack of boxes of juice costs $1.09. A 12-pack of boxes costs $4.39. A case of 24 boxes costs $8.79. Which is the best buy? Explain your reasoning.

SKILL 16: PRACTICE SET #2

1) $2.72 \div 2$ 2) $2.728 \div 8$ 3) $470.7 \div 9$

4) $18.75 \div 3$ 5) $4.76 \div 7$ 6) $983.6 \div 2$

7) $314.4 \div 6$ 8) $0.84 \div 2$ 9) $97.80 \div 5$

10) $78.48 \div 9$ 11) $333.6 \div 4$ 12) $0.192 \div 8$

13) $64.32 \div 12$ 14) $0.75 \div 25$ 15) $68.8 \div 16$

SKILL 16: PRACTICE SET #3

1) $456.4 \div 7$ 2) $15.3 \div 3$ 3) $0.513 \div 9$

4) $397.8 \div 6$ 5) $45.36 \div 5$ 6) $45.73 \div 2$

7) $22.6 \div 4$ 8) $0.175 \div 7$ 9) $192.9 \div 3$

10) $662.22 \div 9$ 11) $3.12 \div 8$ 12) $32.48 \div 4$

13) $132.72 \div 21$ 14) $0.0648 \div 12$ 15) $68.85 \div 15$

Standard **6.1.F** *OBJECTIVE: Fluently and accurately divide non-negative decimals.*

---

1. Set-up division problem.
2. Move decimal one place to the right in the divisor and dividend.
3. Place decimal straight above in quotient.
4. Complete long division (Unit 1; Skill 4).

EXAMPLE A: **Find $10.14 \div 5.2$.**

Multiply by 10 to make a whole number.

$$5.2 \overline{)10.14}$$

Multiply by the same number, 10.

$$
\begin{array}{r}
1.95 \\
52 \overline{)101.40} \\
-52 \\
\hline
494 \\
-468 \\
\hline
260 \\
-260 \\
\hline
0
\end{array}
$$

Place the decimal point.
Divide as with whole numbers.

Annex a zero to continue.

EXAMPLE B: $1.8 \overline{)4.5}$

Move the decimals in both the numbers to the right the same number of times.

divisor $\longrightarrow$ $1.8 \overline{)4.5}$

Complete long division.

$$
\begin{array}{r}
2.5 \\
18. \overline{)45.0} \\
36 \\
\hline
9\ 0 \\
9\ 0 \\
\hline
0
\end{array}
$$ ← no remainder

Divide.
SKILL 17: PRACTICE SET #1

1) $0.025 \div 0.5$ 2) **8.8 ÷ 0.2**   3) $46.08 \div 0.9$

4) $9.8 \div 1.4$ 5) $31.2 \div 0.6$ 6) $38.92 \div 0.4$

7) **18.9 ÷ 1.8**   8) $22.47 \div 0.7$ 9) $3.44 \div 0.8$

10) $0.1 \div 0.5$ 11) $8.652 \div 1.2$ 12) $17.1 \div 3.8$

13) **WHALES** After its first day of life, a baby blue whale started growing. It grew 47.075 inches. If the average baby blue whale grows at a rate of 1.5 inches a day, for how many days did the baby whale grow, to the nearest tenth of a day?

SKILL 17: PRACTICE SET #2

1) $0.195 \div 0.3$ 2) $4.68 \div 0.9$ 3) $0.252 \div 0.7$

4) **2.4 ÷ 0.2**   5) **0.24 ÷ 1.2**   6) $0.343 \div 0.5$

7) $5.94 \div 1.1$ 8) $13.44 \div 1.6$ 9) $56.8 \div 0.8$

10) $23.2 \div 0.4$ 11) $13.59 \div 0.75$ 12) $3.96 \div 1.32$

SKILL 17: PRACTICE SET #3

1) $32.2 \div 0.7$ 2) $14.8 \div 2.5$ 3) $0.184 \div 0.8$

4) $4.93 \div 0.5$ 5) **13.6 ÷ 1.7**   6) $15 \div 0.6$

7) $56.7 \div 0.9$ 8) $10.86 \div 0.2$ 9) $3.28 \div 0.4$

10) $106.288 \div 6.5$ 11) $1.50048 \div 0.32$ 12) $628.2 \div 34.9$

Standard **6.1.F** *OBJECTIVE: Fluently and accurately divide non-negative decimals.*

> 1. Set-up division problem.
> 2. Move decimal two places to the right in the divisor and dividend.
> 3. Place decimal straight above in quotient.
> 4. Complete long division (Unit 1; Skill 4).

EXAMPLE A: **Find 4.09 ÷ 0.02.**

$$0.02\overline{)4.00}$$

Multiply each by 100.

$$\begin{array}{r} 204.5 \\ 2\overline{)409.0} \\ -4 \\ \hline 00 \\ -0 \\ \hline 09 \\ -8 \\ \hline 10 \\ -10 \\ \hline 0 \end{array}$$

Place the decimal point.
Divide.

Write a zero in the dividend
and continue to divide.

Divide.
SKILL 18: PRACTICE SET #1

1) $9.594 \div 0.06$ 2) $7.224 \div 0.08$ 3) $0.9 \div 0.12$

4) $1.44 \div 0.03$ 5) $1.96 \div 0.04$ 6) $0.06 \div 0.06$

7) $0.42 \div 0.07$ 8) $0.0325 \div 0.25$ 9) $0.9 \div 0.02$

10) $0.0184 \div 0.08$ 11) $3.96 \div 1.32$ 12) $0.882 \div 0.14$

SKILL 18: PRACTICE SET #2

1) $1.04 \div 0.04$

2) $1.86 \div 0.03$

3) $1.22 \div 0.02$

4) $1.35 \div 0.03$

5) $0.36 \div 0.09$

6) $1.296 \div 0.16$

7) $0.564 \div 0.06$

8) $0.845 \div 0.13$

9) $1.305 \div 0.15$

10) $0.0217 \div 0.07$

11) $1.50048 \div 0.32$

12) $0.0624 \div 0.12$

SKILL 18: PRACTICE SET #3

1) $0.51 \div 0.03$

2) $1.55 \div 0.05$

3) $0.54 \div 0.09$

4) $10.22 \div 0.14$

5) $1.35 \div 0.09$

6) $0.806 \div 0.13$

7) $0.08 \div 0.04$

8) $16.1604 \div 4.02$

9) $1.28 \div 0.02$

10) $13.59 \div 0.75$

11) $0.0144 \div 0.04$

12) $1.23 \div 0.03$

Standard **6.1.B** *OBJECTIVE: Represent division of decimals using area models and the number line, and connect each representation to the related equation..*

EXAMPLE A: **Model 0.24 ÷ 0.6 on the hundreds block.**

- You need to shade a rectangle with an area of 0.24. So, shade 24 small squares, in a decimal model.
- There are many rectangles with an area of 0.24. You need to shade one that has a length of 0.6.
- The missing factor is 0.4.

The area of a 0.4 by 0.6 rectangle is 0.24. Therefore, 0.24 ÷ 0.6 = 0.4

? {

0.6
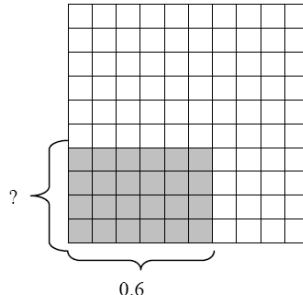
SKILL 19: PRACTICE SET #1
Complete the problems using the area model already provided.

1) $0.2 \div 0.4$

0.4
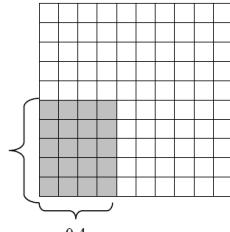
2) $0.12 \div 0.3$

0.3
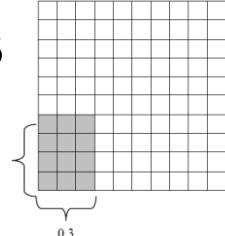
Copy and complete the area model to represent each problem.

3) $0.24 \div 0.8$
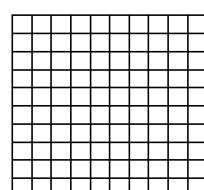
4) $0.4 \div 0.5$
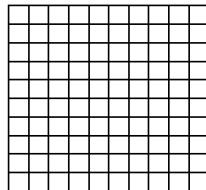
5) $0.32 \div 0.8$
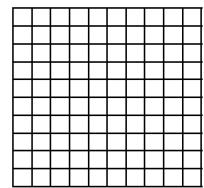
6) $0.45 \div 0.9$
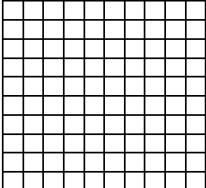
MULTIPLY DECIMALS USING ANY WAY YOU HAVE LEARNED.

7) $0.45 \div 0.3$

8) $0.6 \div 0.2$

9) $0.8 \div 2$

10) $0.2 \div 4$

11) $0.55 \div 0.5$

12) $0.25 \div 5$

SKILL 19: PRACTICE SET #1
Complete the problems using the area model already provided.

1) $0.25 \div 0.5$
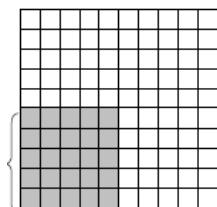
2) $0.2 \div 0.2$
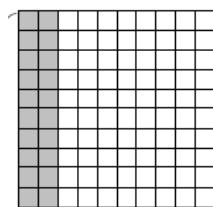
Copy and complete the area model to represent each problem.

3) $0.36 \div 0.3$
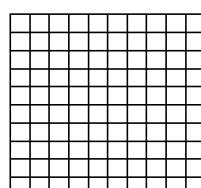
4) $0.45 \div 0.5$
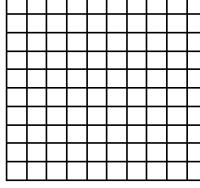
5) $0.18 \div 0.9$
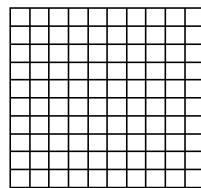
6) $0.49 \div 0.7$
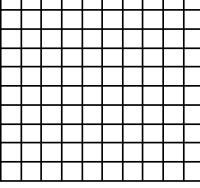
MULTIPLY DECIMALS USING ANY WAY YOU HAVE LEARNED.

7) $0.28 \div 0.2$

8) $0.48 \div 0.4$

9) $0.6 \div 3$

10) $0.7 \div 5$

11) $0.66 \div 0.6$

12) $0.1 \div 2$

SKILL 19: PRACTICE SET #1
Complete the problems using the area model already provided.

1) $0.18 \div 0.2$
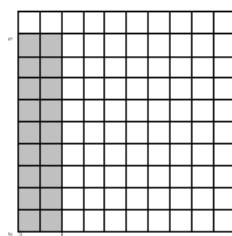
2) $0.35 \div 0.7$
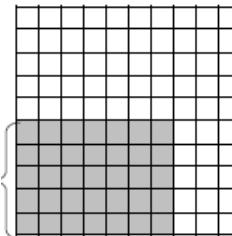
MULTIPLY DECIMALS USING ANY WAY YOU HAVE LEARNED.

3) $0.21 \div 0.7$

4) $0.8 \div 0.5$

5) $0.3 \div 3$

6) $0.6 \div 6$

7) $0.64 \div 0.8$

8) $0.72 \div 0.8$

SKILL 20: Decimal Division by Power of 10

Standard **6.1.E** *OBJECTIVE: Divide decimals by 1000, 100, 10, 1, 0.1, 0.01, and 0.001.*

If you are dividing by 10, 100 or 1000…
        then move the decimal to the LEFT the same number as there are zeroes.
If you are dividing by 0.1, 0.01, or 0.001…
        then move the decimal to the RIGHT the same number as there are zeroes.

EXAMPLE	ANSWER	WHAT HAPPENED TO THE DECIMAL?
$4.2 \div 10$	0.42	moved one place left
$4.2 \div 100$	0.042	moved two places left
$4.2 \div 1000$	0.0042	moved three places left
$4.2 \div 0.1$	42	moved one place right
$4.2 \div 0.01$	420	moved two places right
$4.2 \div 0.001$	4200	moved three places right

EXAMPLE A: $94.56 \div 100$

Since it is divided by 100, move decimal point two places to the left.

$94.56 \longrightarrow 0.9456$

Divide using the rules for powers of 10.
SKILL 20: PRACTICE SET #1

1) $11.3 \div 100$ 2) $78.43 \div 10$ 3) $123 \div 1000$

4) $19.32 \div 1000$ 5) $24.3 \div 10$ 6) $9.4 \div 100$

7) $9.4 \div 0.1$ 8) $0.98 \div .01$ 9) $1.23 \div .001$

10) $0.4 \div 0.1$ 11) $8.45 \div 0.001$ 12) $14.8 \div 0.1$

13) $0.697 \div 10$ 14) $34.56 \div 0.01$ 15) $20.1 \div 0.001$

SKILL 20: PRACTICE SET #2

1) $87.7 \div 0.001$ 2) $0.22 \div 0.1$ 3) $1.247 \div 10$

4) $3.379 \div 100$ 5) $0.581 \div 0.1$ 6) $0.008 \div 0.1$

7) $0.023 \div 100$

8) $59.6 \div 0.001$

9) $0.26 \div 100$

10) $3.613 \div 0.001$

11) $51.53 \div 1000$

12) $9.13 \div 10$

13) $0.39 \div 0.1$

14) $0.08 \div 10$

15) $3.613 \div 0.001$

SKILL 20: PRACTICE SET #3

1) $95.49 \div 0.1$

2) $0.007 \div 10$

3) $0.5 \div 0.1$

4) $0.006 \div 0.001$

5) $34.71 \div 1000$

6) $0.23 \div 0.01$

7) $22.52 \div 1000$

8) $60.2 \div 0.001$

9) $3.591 \div 0.1$

10) $0.6 \div 10$

11) $8.84 \div 0.01$

12) $8.3 \div 100$

13) $35.14 \div 100$

14) $0.84 \div 100$

15) $0.3 \div 0.001$

SKILL 21: Estimate Decimal Quotients
Standard **6.1.C** *OBJECTIVE: Estimate quotients of decimals.*

1. Round the divisor (what goes outside the box or given second) to the nearest whole number.
2. Round the dividend (what goes inside the box or given first) to the nearest number that the divisor can go evenly into
3. Divide.

EXAMPLE: 42.345 ÷ 5.12
5.12 is the divisor and round to 5
42.345 is the dividend and this rounds to 40 since 5 can evenly divide 40
Therefore, a good estimate is 40 ÷ 5 which is 8.

HINT: It may seem that you have to round the dividend a lot. That is ok because you want to be able to divide evenly. Estimation is used to check the reasonableness of your final answer. It is used in word problems too.

Estimate each quotient using rounding. **Since it's an estimation there should be no exact answer given.**
SKILL 21: PRACTICE SET #1

1) $103.4 \div 9.98$ 2) $17.6 \div 4$ 3) $65.78 \div 7.12$ 4) $11.23 \div 9$

5) $54.34 \div 4.8$ 6) $99.34 \div 11.2$ 7) $10.3 \div 1.6$

8) $31.3 \div 3.4$ 9) $64.3 \div 11.83$ 10) $0.43 \div 0.9$

11) $46.8 \div 14.7$ 12) $109.3 \div 9.1$ 13) $18.491 \div 5.7$

SKILL 21: PRACTICE SET #2

1) $96.2 \div 10.8$ 2) $22.5 \div 3.2$ 3) $44.3 \div 14.68$ 4) $67.5 \div 8$

5) $13.24 \div 2.12$ 6) $46.8 \div 4.91$ 7) $44.2 \div 11.31$

8) $54.6 \div 7.19$ 9) $121.8 \div 25$ 10) $4.3 \div 0.9$

11) $6.4 \div 0.82$ 12) $115.72 \div 9.82$ 13) $27.3 \div 6.43$

SKILL 21: PRACTICE SET #3

1) $76.9 \div 5.23$ 2) $31.8 \div 8.2$ 3) $96.5 \div 8$ 4) $13.5 \div 12.8$

5) $74.1 \div 6.21$ 6) $82.9 \div 10.87$ 7) $105.3 \div 10$

8) $73.1 \div 24.81$ 9) $53.7 \div 7.2$ 10) $31.98 \div 0.58$

11) $4.82 \div 0.92$ 12) $92.4 \div 9.1$ 13) $23.1 \div 5.76$

SKILL 22: Unit 2 Review 3

This is a review of all the standards you have worked on so far this year. Use your entrance tasks to help if needed.

SKILL 22: PRACTICE SET #1

1) Simplify.

$0.24 \div 0.4 \times 1.4 + 5$

2) Order from least to greatest.

$45.67, 45.64, 45.6$

3) Evaluate.

$y \div 0.08; y = 1.304$

4) Simplify.

$6.36 \div 1.2 - 1.46$

5) Simplify.

$0.4 \times 0.3 \div 0.2$

6) Order from least to greatest.

$0.78, 0.65, 0.68, 0.69$

7) Simplify.

$(18.3 + 2.34) \times 1.2$

8) Evaluate.

$14.4 \div x, x = 0.9$

9) Estimate. $13.45 + 18.123$

10) Estimate. 12.234×9.89

SKILL 22: PRACTICE SET #2

1) Simplify.

$1.02 \div 0.2 + 7.34$

2) Order from least to greatest.

$0.6, 0.54, 0.53$

3) Evaluate.

$y \div 0.3; y = 2.793$

4) Simplify.

$15.3 \times 1.1 - 14.8$

5) Simplify.

$2.7 \times 0.5 \div 0.03$

6) Order from least to greatest.

$0.9, 0.4, 1.1, 1.4$

7) Simplify.

$(4.6 + 8.23) \times 0.6$

8) Evaluate.

$x \div 0.07; x = 0.0161$

9) Estimate. $72.3 + 1.52$

10) Estimate. 16.78×3.1

SKILL 22: PRACTICE SET #3

1) Simplify.

$0.24 \div 0.02 + 0.7 \times 13$

2) Order from least to greatest.

$5.7, 5.79, 5.73$

3) Evaluate.

$y \div 12; y = 14.88$

4) Simplify.

$0.45 \times 2.7 - 0.954$

5) Simplify.

$3.132 \div 0.04 \times 2.6$

6) Order from least to greatest.

$4.2, 4.12, 4.32$

7) Simplify.

$(9.7 - 6.28) \div 0.2$

8) Evaluate.

$30.72 \div x, x = 0.6$

9) Estimate. $24.87 + 21.43$

10) Estimate. 7.6×5.9

SKILL 23: Impact of Multiply/Divide by 0 & above

Standard **6.1.G** *OBJECTIVE: Describe the effect of multiplying or dividing a number by one, by zero, by a number between zero and one, and by a number greater than one.*

MULTIPLICATION RULES	EXAMPLE	ANSWER
If you multiply any number by 0, then the product ALWAYS equals 0.	5 x 0	0
If you multiply any number by 1, then the product ALWAYS equals that number.	5 x 1	5
If you multiply any number by a number LESS than 1 but GREATER than 0, then the product ALWAYS equals a smaller number.	5 x 0.5	2.5
If you multiply any number by a number GREATER than 1, then the product ALWAYS equals a larger number.	5 x 2	10

EXAMPLE A: Describe what happens when you multiply 9 times 0.3.
　　　　The product will be a smaller number than 9.

DIVISION RULES	EXAMPLE	ANSWER
If you divide any number by 0, then the quotient ALWAYS equals no solution because you cannot divide by 0 ever.	5 ÷ 0	No Solution
If you divide any number by 1, then the quotient ALWAYS equals that number.	5 ÷ 1	5
If you divide any number by a number LESS than 1 but GREATER than 0, then the quotient ALWAYS equals a larger number.	5 ÷ 0.5	10
If you divide any number by a number GREATER than 1, then the quotient ALWAYS equals a smaller number.	5 ÷ 2	2.5

EXAMPLE B: Describe what happens when you divide 9 by 1.
　　　　The quotient will equal 9.

Describe what happens in each of the following problem. Do not find the actual answer.
SKILL 23: PRACTICE SET #1

1) $15 \div 3$　　　　　　2) $25 \div 0.25$　　　　　　3) 123×1

4) 12×0.76　　　　　5) 19×0　　　　　　6) $9.4 \div 1$

7) $14 \div 0$　　　　　　8) 7.5×4　　　　　　9) $18 \div 0.2$

10) 0.4×1　　　　　11) $8.45 \div 5$　　　　　　12) 17×0

SKILL 23: PRACTICE SET #2

1) $7 \div 0$

2) 3×4

3) $48 \div 1$

4) 24×0.31

5) $65 \div 0.45$

6) 38.6×1

7) $74 \div 1$

8) 6.1×0.2

9) 7×6

10) $0.9 \div 0$

11) $18 \div 6$

12) 32×0

SKILL 23: PRACTICE SET #3

1) 632×1

2) 0.65×1

3) 38×0.94

4) 79×0

5) 61×0

6) 19.2×16

7) $72 \div 0$

8) $13 \div 0.36$

9) $11.7 \div 1$

10) $36 \div 9$

11) $9.54 \div 8$

12) $14 \div 0.4$

SKILL 24: Decimal Word Problems

Standard 6.1.H *OBJECTIVE: Solve single- and multi-step word problems involving operations with decimals and verify the solutions.*

1. Understand – Get a general understanding of the problem. What information is given?

-- List numbers given with label and what you are trying to answer

2. Plan – Select a strategy to solve the problem and estimate the answer.

3. Solve – Carry out your plan to solve the problem.

4. Answer – Separate your final answer and label appropriately; check its reasonableness

EXAMPLE: A package of 3/4" safety pins costs $3.80. If Samuel buys a package of 3/4" safety pins, how much change will he get from a twenty-dollar bill?

Understanding: Pins cost $3.80; Gives $20; Change?

Strategy: Subtraction "how much change"

Solution: 20.00 – 3.80

16.20

Answer: $16.20 is the change Sam will get back

Read each problem. Use the four problem solving steps to solve each problem.

SKILL 24: PRACTICE SET #1

1) Matthew went to the store to buy some of the ingredients for Indian pudding for his mother. He bought cornmeal ($1.74), cinnamon ($2.10), milk ($2.95), and eggs ($1.52). The clerk added up the total and Matthew gave him a twenty-dollar bill. How much change did Matthew get?

2) It rained all day on Mother's Day and the temperature dropped fifteen and seven tenths degrees. The next day the rain stopped and the temperature rose eight and nine tenths degrees. If the temperature at the beginning of Mother's Day was sixty-seven and eight tenths degrees, what was the temperature at the end of the day after Mother's Day?

3) James enjoys spending money at the hardware store. He gets along wonderfully with the owner. He bought a wrench for $9.14, a nail gun for $24.48, and a dozen nails for $2.06. He gave the owner a hundred-dollar bill. How much change did James get?

4) The plates that Mom bought are very fragile and expensive. She paid $17.68 per plate and there are eight plates. How much money did she spend?

5) Tickets to the game between the Boston Red Sox and the Detroit Tigers cost $22.45 each. Sam, Mark, Joe and David are going to the game with David's dad. If they each purchase a hot dog for $4, a soda for $2.50, and a baseball hat for $11.99, how much will they spend to attend the game?

6) **COOKING** Norberto uses three 14.7 oz cans of chicken broth when he makes his delicious tortilla soup. How many total ounces of chicken broth does he use?

SKILL 24: PRACTICE SET #2

1) Steven went to the store to buy some of the ingredients for Indian pudding for his mother. He bought cornmeal ($1.86), cinnamon ($2.34), milk ($2.62), and eggs ($1.43). The clerk added up the total and Steven gave him a twenty-dollar bill. How much change did Steven get?

2) A package of 3/4" safety pins costs $2.80. If Robert buys a package of 3/4" safety pins, how much change will he get from a twenty-dollar bill?

3) Kaylee's family of six people decided to spend their summer vacation in San Antonio. They went to Six Flags Fiesta Texas on Tuesday which cost them $40.74 per person. On Thursday, they visited Sea World. The fun they had there cost them $36.90 per person. How much money did Kaylee's family spend on admission into these two parks?

4) **ENTERTAINMENT** Frank, Gina, Judy, and Connie are splitting their dinner bill. After tip, the total is $30.08. How much does each owe if they split the bill four ways?

5) Kaitlyn wants to give each guest at her birthday party three mini-cans of Play-Doh. The cans are sold in bags of nine for $2.76. If there are twenty-nine guests at her party, how much will it cost to give three mini-cans of Play-Doh to each guest?

6) **BIKING** In order to train for a cross-state biking trip, Julie rides her bike 34.75 miles five times a week. How many total miles does she ride each week?

SKILL 24: PRACTICE SET #3

1) The climate of the Sahara Desert doesn't invite many people to live on it. It is a lonely land of sand and scorching heat. Jason is planning to run in the Sahara Marathon when he is in high school. He will run from El-Aaiun to Dakhla. On the first day he and the other runners will travel 82.2 km, 70.9 km the second day, and 70.7 km the last day. How many km will they run in all?

2) The average life expectancy of a male in Italy is 75.32 years. The average life expectancy of a female in Italy is 82.3 years. How much longer is the average life expectancy of a female living in Italy?

3) Cameron has a savings account at EdHelper National Bank. At the beginning of the month he had $85.41 in his account. During the month, he deposited $21.70, $67.90, $80.31, and $99.24. He withdrew $21.66 to buy a purple monkey toy for his sister's birthday. How much money does Cameron have in his account right now?

4) **MONEY** David wants to buy 16 bolts from a bin at the hardware store. Each bolt costs $0.03. How much will David pay for the bolts?

5) **CONSTRUCTION** It took Steve and his construction crew 8 months to build a house. After expenses, he was left with $24,872.67 for himself. On average, how much did Steve make per month? Round to the nearest dollar.

6) **GIFTS** Colin is filling 4.5 ounce bottles with lavender bubble bath that he made for gifts. He was able to fill 7.5 bottles. How many ounces of bubble bath did he make?

SKILL 25: Unit 2 Review 4

This is a review of all the standards you have worked on so far this year. Use your entrance tasks to help if needed.

SKILL 25: PRACTICE SET #1

1) 5.114 + 3.25

2) 8.74 + 3.805

3) 0.8 - 0.54

4) 6.61 - 3.72

5) 0.772 x 0.08

6) 3.3 x 3.7

7) $45.73 \div 2$

8) $8.652 \div 1.2$

9) Estimate. $12.4 - 8.75$

10) Estimate. $18.65 \div 2.7$

SKILL 25: PRACTICE SET #2

1) 9.5 + 3.23

2) 6.644 + 8.525

3) 0.23 - 0.1

4) 2.18 - 0.05

5) $3.12 \div 8$

6) $9.594 \div 0.06$

7) 75.1 x 7

8) 0.33 x 0.3

9) Estimate. $58.6 - 34.9$

10) Estimate. $97.6 \div 10.24$

SKILL 25: PRACTICE SET #3

1) 4.27 + 7.71

2) 9.869 + 3.478

3) 8.53 - 7.57

4) 7.54 - 0.61

5) $32.48 \div 4$

6) **Find 4.09 ÷ 0.02.**

7) 76.6 x 9

8) 0.09 x 0.09

9) Estimate. $24.76 - 21.98$

10) Estimate. $53.1 \div 4.87$

ANSWER KEY – Answers to selected questions from each problem set.

SKILL 1: Representing Decimals and Place Value

Practice Set #1	Practice Set #2	Practice Set #3
3) tens 6) hundredths 9) twenty and six hundred fifty-seven thousandths 12) 10.3	3) hundredths 6) tenths 9) forty-five and three hundred twenty-nine thousandths 12) 7.25	3) tenths 6) tenths 9) two and seven hundred sixty-eight thousandths 12) 30.62

SKILL 2: Graph Decimals on a Number Line
No answers available for this skill.

SKILL 3: Comparing Decimals

Practice Set #1	Practice Set #2	Practice Set #3
3) < 6) = 9) < 12) <	3) < 6) < 9) > 12) <	3) > 6) = 9) < 12) <

SKILL 4: Ordering Decimals

Practice Set #1	Practice Set #2	Practice Set #3
3) 456.23, 456.37, 456.73, 465.32 6) 1.02, 1.25, 1.50, 1.52 9) 8.777, 8.77, 8.7, 8.07 12) 120.012, 12.12, 12.012, 12.0012	3) 0.0002, 0.0012, 0.0022, 0.0211 6) 1.1, 1.90, 1.94 9) 7.01, 6.93, 6.04 12) 0.4, 0.1, 0.05	3) 1.06, 1.1, 1.3 6) 2.2, 2.25, 3.1 9) 6.5, 6.24, 6.20 12) 8.7, 8.38, 8.15

SKILL 5: Decimal Addition

Practice Set #1	Practice Set #2	Practice Set #3
3) 9.73 6) 10.435 9) 65.68 12) 41	3) 138.8 6) 80.25 9) 9.41 12) 18.357	3) 15.16 6) 84.07 9) 27.83

SKILL 6: Decimal Subtraction

Practice Set #1	Practice Set #2	Practice Set #3
3) 0.0032 6) 182.745 9) 14.71 12) 12.3	3) 17.8 6) 5.91 9) 6.91 12) 128.891	3) 1.84 6) 6.93 9) 0.96

SKILL 7: Estimate Decimal Sums and Differences

Practice Set #1	Practice Set #2	Practice Set #3
3) 9 6) 182 9) 65 12) 71	3) 68 6) 38 9) 29	3) 823 6) 63 9) 3

SKILL 8: Unit 2 Review 1

Practice Set #1	Practice Set #2	Practice Set #3
3) 21.29 6) 10.83 9) 1305	3) 16.1 6) 12.45 9) 945	3) 8.83 6) 19.83 9) 1701

SKILL 9: Decimal Multiplication by Whole Numbers

Practice Set #1	Practice Set #2	Practice Set #3
3) 75.6 6) 4.8 9) 30.6 12) 1.7112	3) 4.024 6) 309 9) 283.8 12) 59.5	3) 20.5 6) 42.24 9) 689.4

SKILL 10: Decimal Multiplication by Tenths

Practice Set #1	Practice Set #2	Practice Set #3
3) 3.696 6) 0.27 9) 0.098 12) 0.72	3) 0.24 6) 0.603 9) 0.1842 12) 0.1788	3) 0.32 6) 21.608 9) 0.1788

SKILL 11: Decimal Multiplication by Hundredths

Practice Set #1	Practice Set #2	Practice Set #3
3) 0.0196 6) 0.09708 9) 0.0042 12) 0.0104	3) 0.0092 6) 0.02108 9) 0.01152 12) 0.044892	3) 0.022 6) 0.0162 9) 0.00648

SKILL 12: Decimal Multiplication and Area Model

Practice Set #1	Practice Set #2	Practice Set #3
9) 1.6 12) 4.5	9) 3.6 12) 2.58	6) 0.45 9) 0.312

SKILL 13: Decimal Multiplication by Power of 10

Practice Set #1	Practice Set #2	Practice Set #3
3) 5200 6) 423 9) 0.024 12) 1.37	3) 0.83 6) 0.125 9) 0.1934 12) 4320	3) 150 6) 0.0005 9) 0.071

SKILL 14: Estimate Decimal Products

Practice Set #1	Practice Set #2	Practice Set #3
3) 150 6) 3 9) 221 12) 14	3) 0 6) 66 9) 0 12) 1	3) 27 6) 96 9) 36

SKILL 15: Unit 2 Review 2

Practice Set #1	Practice Set #2	Practice Set #3
3) 12.9 6) 1.72 9) 37	3) 61.5 6) 15.36 9) 48	3) 0.476 6) 7.611 9) 1076

SKILL16: Decimal Division with Whole Numbers

Practice Set #1	Practice Set #2	Practice Set #3
3) 0.9 6) 0.812 9) 1.5 12) 7.62	3) 52.3 6) 491.8 9) 19.56 12) 0.024	3) 0.057 6) 22.865 9) 64.3 12) 8.12

SKILL17: Decimal Division by Tenths

Practice Set #1	Practice Set #2	Practice Set #3
3) 51.2 6) 97.3 9) 4.3 12) 4.5	3) 0.36 6) 0.686 9) 71 12) 3	3) 0.23 6) 25 9) 8.2 12) 18

SKILL18: Decimal Division by Hundredths

Practice Set #1	Practice Set #2	Practice Set #3
3) 7.5 6) 1 9) 45 12) 6.3	3) 61 6) 8.1 9) 8.7 12) 0.52	3) 6 6) 6.2 9) 64 12) 41

SKILL 19: Decimal Division and Area Model

Practice Set #1	Practice Set #2	Practice Set #3
9) 0.4 12) 0.05	9) 0.2 12) 0.05	3) 0.3 6) 0.1

SKILL 20: Decimal Division by Power of 10

Practice Set #1	Practice Set #2	Practice Set #3
3) 0.123 6) 0.094 9) 1230 12) 148	3) 0.1247 6) 0.08 9) 0.0026 12) 0.913	3) 5 6) 23 9) 35.91 12) 0.083

SKILL 21: Estimate Decimal Quotients

Practice Set #1	Practice Set #2	Practice Set #3
3) 9 6) 9 9) 5 12) 12	3) 3 6) 9 9) 5 12) 12	3) 12 6) 8 9) 8 12) 10

SKILL 22: Unit 2 Review 3

Practice Set #1	Practice Set #2	Practice Set #3
3) 16.3 6) 0.65, 0.68, 0.69, 0.78 9) 31	3) 9.31 6) 0.4, 0.9, 1.1, 1.4 9) 73	3) 1.24 6) 4.12, 4.2, 4.32 9) 45

SKILL 23: Impact of Multiply/Divide by 0 & above

Practice Set #1	Practice Set #2	Practice Set #3
3) same number 6) same number 9) larger number 12) zero	3) same number 6) same number 9) larger number 12) zero	3) smaller number 6) larger number 9) same number 12) larger number

SKILL 24: Decimal Word Problems

Practice Set #1	Practice Set #2	Practice Set #3
3) 64.32 6) 44.1	3) 465.84 6) 173.75	3) 332.9 6) 33.75

SKILL 25: Unit 2 Review 4

Practice Set #1	Practice Set #2	Practice Set #3
3) 0.26 6) 12.21 9) 4	3) 0.13 6) 159.9 9) 24	3) 0.96 6) 204.5 9) 3

Unit 2 Extension Activity #1 – Vocabulary

Make a booklet, flashcards, or list of the following vocabulary words. Use your worksheets, the dictionary, or web resources to find the definitions.

The vocabulary list must include a definition and example.

Unit 2 Vocabulary list:

- Decimal
- Estimate
- >
- <
- =

When you turn this in, make sure your name is on it. It will be returned to you for you to use as study guides.

Unit 2 Extension Activity #2 – Decimal Brochure

Design a brochure that explains the how to add, subtract, multiply and divide decimals.

The brochure must include:

- Explanation of how to add, subtract, multiply and divide decimals.
- One example problem for each operation

When you turn this in, make sure your name is on it.

Comparing and Ordering Decimals

MUSIC For Exercises 1–4, use the table.

The table shows the percent of the music market for each type of music.

Music Industry Sales Statistics, 2003	
Type of Music	**Percent of Market**
Pop	8.9
Country	10.4
Rock	25.2
Rap/Hip-Hop	13.3
R&B	10.6

1. Use > or < to compare the percents for pop and rap/hip-hop. Which is greater?

2. Use > or < to compare the percents for country and R&B. Which is greater?

3. If you owned a store that sells CDs, which kind of music would you want to sell, based on the table? Explain.

4. Suppose children's songs have 8.05 percent of the market. Is this greater or less than the percent for pop music? Explain.

5. CONSTRUCTION Alberto is setting out four boards of lumber. The lengths of the boards are 4.5 feet, 4.52 feet, 4 feet, and 4.505 feet. Order the lengths from longest to shortest.

6. CONSTRUCTION Ella set out a board of pine lumber that was 0.8 feet long and a board of cedar lumber that was 0.80 feet long. Alberto said the cedar board was longer. Is he correct? Explain.

Unit 2 Extension Activity #4 – Decimal Logic Puzzle

The EdHelper Clothes store at the mall has four employees (Eric, Joshua, Courtney, and Ethan). This week they worked 33, 49, 50, and 34 hours. The employees at EdHelper Clothes are paid by the hour. Each employee is paid at a different hourly rate ($11.05, $20.80, $19.65, and $16.70).

Figure out how many hours each employee worked this week. Also, determine each employee's hourly pay.

1.   Courtney earns less than $19.65 per hour.
2.   Eric earns the most amount of money per hour.
3.   This week, Ethan worked the most number of hours.
4.   Eric earned $686.40 this week.
5.   Joshua had the smallest paycheck for the week.

Unit 2 Extension Activity #5 – Decimal Magic Square

A magic square is a grid of numbers where the values in each of the rows, columns and diagonals adds up to the same sum, known as the "magic number." Use your math skills to fill in each of these magic squares.

The magic number is 13.0.

1.8				
0.6			2.4	2.0
	4.0		1.2	0.8
3.2			1.0	4.6
	1.6	0.2	4.8	3.4

The magic number is 11.1.

	2.3	2.5	2.7	0.8	
			2.6	0.5	
		2.0	1.9	3.3	3.5
0.4	0.2	1.7		3.6	3.4
2.9	3.1	0.9			
3.2	3.0	1.2	1.0		1.4

Unit 2 Extension Activity #6 – Decimal Puzzle and Word Problems

Directions: Create a path from start to finish. You may only move down or across and you must always move to a larger decimal.

Start

1.03	1.1	1.12	1.15	2.16	2.27
1.55	1.17	1.04	1.2	2.19	2.02
3.35	3.89	2	1.29	1.48	1.53
1.992	1.76	1.77	1.7	1.69	1.67
2.1	2.15	2.67	3.7	2.77	2.78
1.14	1.16	3.02	1.03	1.05	1.2
3.34	3.5	3.65	3.89	2.95	3.97
2.25	2.02	2.66	3.9	3.99	4.06

Finish

FOOD Keegan stopped by the deli for his mom. If he has $14, does he have enough money to buy 1 pound of turkey, 1 pound of roast beef, and 1 pound of ham? Explain.

Lunch Meat Prices (lb)	
Ham	$3.95
Roast beef	$6.29
Salami	$2.99
Turkey	$2.99

ZOOS The table shows the admission price to a local zoo.

Ticket Prices	
Adult	$7.00
Student	$4.50
Child under 5	$3.00

The Jung family is buying 2 adult tickets, 2 student tickets, and 1 child's ticket. How much will it cost the Jung family for admission to the zoo?

Unit 2 Extension Activity #7 – Decimal Application Problem

The Case of the Troublesome Triplets

Detectives, I need your help solving a tricky case. This morning at 10 a.m., one of the Troublesome Triplets stole $100 from a teller at the Cashflow Bank. The infamous triplets, Doris, Dottie, and Demi, look so much alike, the teller couldn't identify which one took the money.

I wanted to be sure I didn't accuse the wrong triplet of stealing, so I alerted shopkeepers across town to let me know when one of the sisters bought anything. Right away, the phone was ringing off the hook.

"Math Maven, this is Flo from Fad Fashion. One of those Troublesome Triplets was just here. She bought a $60 red dress at half price during our sale."

The next call was from Nelly, the owner of the Nut House. Nelly reported that one of the Troublesome Triplets had bought 5 pounds of peanuts at 49 cents per pound.

Then Earl, down at the bus station, called. One of the Troublesome Triplets had just paid 85 cents an hour to store her shopping bags for two hours.

The next call was from Brad at the bowling alley: "Math Maven, two of the triplets just left the bowling alley. They each paid $7. They've been bowling since nine o'clock this morning."

Before long, Trixie called from the diner: "Math Maven, you should come quickly! The Troublesome Triplets are all here. They just sat down for lunch."

I arrived at the diner as the three sisters were finishing dessert.

"Well, hello ladies. One of you has had a very busy shopping day. . .with the $100 you stole from the bank!" I exclaimed.

"Math Maven, you're wrong. We were bowling all day," said Doris.

"Two of you were bowling, but one of you robbed the Cashflow Bank this morning," I said. "I can prove it. Show me the money you have in your pockets!"

"This is outrageous! We will not empty our pockets!" exclaimed Demi.

"I want my lawyer!" screamed Dottie.

"Then all three of you are coming down to the police station," I commanded.

With that, Doris, Dottie, and Demi each emptied the contents of their pockets onto the table.
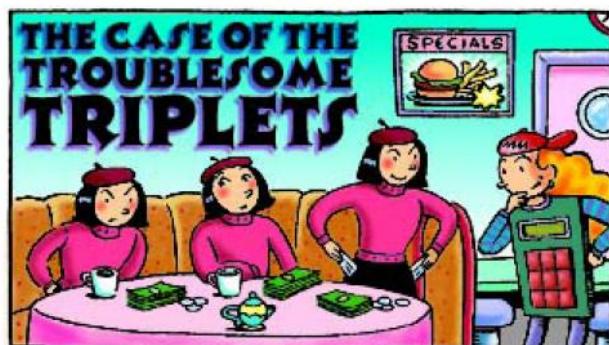
Solve the Mystery!

Super Sleuths, I need your help. From the money left in her pocket, figure out which Troublesome Triplet swiped the $100 from the bank and went on a shopping spree.

Circle the correct answer:

   A. Doris, who had $34.15 in her pocket

   B. Dottie, who had $65.85 in her pocket

   C. Demi, who had $61.85 in her pocket