

# 3-1 Representing Decimals

TXBK Pg 138

Standard Form

0.7

0.08

5.32

↑  
and

1.009

Word Form

seven tenths

eight hundredths

five and thirty-two hundredths

one and nine thousandths

Word Form

eight <sup>8</sup> hundredths

<sub>12</sub>

twelve thousandths

six and three thousandths

fourteen and four hundredths

Standard Form

0. 0 8

0. 0 12

6. 00 3

14. 04

## Place value

hundreds	tens	ones	and	tenths	hundredths	thousandths	ten-thousandths
100	10	1		0.1	0.01	0.001	0.0001
				$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$	$\frac{1}{10000}$

### 3-2 Comparing and Ordering Decimals TXBK Pg. 142

less  
0.06 than 0.6\_

$$0.06 < 0.6\underline{0}$$

greater  
than 0.05

$$5.00 > 0.05$$

$$40.7 < 40.6999$$
$$40.7\underline{000} > 40.6999$$

$$1.70 = 1.7$$
$$1.70 = 1.7\underline{0}$$

\* Make #'s friendly!  
Add zeros so they have same #  
of the place values to the right  
of the decimals.

Order #'s from Greatest to Least  
or least to Greatest.

Ex: 9.501, 0.9051, 90.51, 0.0951

Step 1 rewrite vertically and make friendly.

$$\begin{array}{r} 9.501\underline{0} \quad \textcircled{2} \\ 0.9051 \quad \textcircled{3} \\ 90.51\underline{00} \quad \textcircled{1} \\ 0.0951 \quad \textcircled{4} \end{array}$$

Step 2 write greatest to least

$$\begin{array}{r} 90.51\underline{00} \\ 9.501\underline{0} \\ 0.9051 \\ 0.0951 \end{array}$$

# 3-3 Rounding and Estimating Decimals TXBK



$$0.01 \approx 0$$

$$0.55 \approx 0.5, 0.50 \text{ or } \frac{1}{2}$$

$$0.95 \approx \underline{1}$$

$$1.10 \approx \underline{1}$$

Closer to

⑩

3	3.5	4
	3.2 $\approx$ 3	
	3.6 $\approx$ 4	

Rounding

$$13.41\underline{9}$$

hundredths 13.42

$$0.27\underline{8}$$

hundredths 0.28

$$0.18\underline{8}$$

tenths 0.2

$$\underline{25}$$

tens \$ 30

$$\underline{25}14$$

tens \$ 30

$$\underline{375}$$

hundreds \$ 400

$$\underline{375.089}$$

hundredth \$ 375.09

$$862.5\underline{9}$$

tenths 862.5

3-4 Estimating Sum and Difference

$$\begin{array}{r} \text{Actual} \quad 37.82 \\ + \quad 14.24 \\ \hline 52.06 \end{array}$$

$$\begin{array}{r} \text{Round} \quad 40 \\ + \quad 10 \\ \hline 50 \end{array}$$

$$\begin{array}{r} \text{Actual} \quad \$ 6^{11} 72.18 \\ - \quad 29.93 \\ \hline 42.25 \end{array}$$

$$\begin{array}{r} \text{Round} \quad 70 \\ - \quad 30 \\ \hline \$ 40 \end{array}$$

3-5 Add and Subtracting

Actual

$$\begin{array}{r} 54.7 \\ + 21.4 \\ \hline 76.1 \end{array}$$

Round

$$\begin{array}{r} 50 \\ + 20 \\ \hline 70 \end{array}$$

Actual

$$\begin{array}{r} 167.50 \\ + 213.67 \\ \hline 381.17 \end{array}$$

Round

$$\begin{array}{r} 200 \\ + 200 \\ \hline 400 \end{array}$$

Actual

$$\begin{array}{r} 5.9 \\ 6.25 \\ - 4.78 \\ \hline 1.22 \end{array}$$

Round

$$\begin{array}{r} 6 \\ - 5 \\ \hline 1 \end{array}$$

Actual

$$\begin{array}{r} 94.01 \\ - 9.19 \\ \hline 4.82 \end{array}$$

Round

$$\begin{array}{r} 10 \\ - 9 \\ \hline 1 \end{array} \quad \begin{array}{r} 14 \\ - 10 \\ \hline 4 \end{array}$$

9/18

# Subtracting Decimals

$$\$ 64.00 - 47.99 =$$

$$\begin{array}{r} 5 \overset{13}{\cancel{6}} \overset{9}{\cancel{4}} \overset{0}{\cancel{0}} \\ - 47.99 \\ \hline \$ 16.01 \end{array}$$

$$\begin{array}{r} \text{Est.} \\ 60 \\ - 50 \\ \hline \$ 10 \end{array} \quad \begin{array}{r} 65 \\ - 50 \\ \hline \$ 15 \end{array}$$

- 1) place decimal if need
- 2) Line up decimal
- 3) Make friendly - add zeros
- 4) Bring down de
- 5) What operate

Fill in

		1	6	.	0	1
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

$$\$ 210.00 - 145.39$$

$$\begin{array}{r} 1 \overset{109}{\cancel{2}} \overset{9}{\cancel{1}} \overset{0}{\cancel{0}} \\ - 145.39 \\ \hline \$ 64.61 \end{array}$$

$$\begin{array}{r} \text{Est.} \\ 200 \\ - 150 \\ \hline \$ 50 \end{array}$$

Actual

		6	4	.	6	1
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

$$\$ 123.01 - 39.95$$

$$\begin{array}{r} 0 \overset{112}{\cancel{1}} \overset{9}{\cancel{2}} \overset{0}{\cancel{0}} \\ - 39.95 \\ \hline \$ 83.06 \end{array}$$

$$\begin{array}{r} 9 \overset{20}{\cancel{1}} \overset{00}{\cancel{2}} \\ - 40 \\ \hline 80 \end{array} \quad \begin{array}{r} 100 \\ - 40 \\ \hline 60 \end{array}$$

		8	3	.	0	6
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9