

**Lesson 1.3** Adding and Subtracting 4 through 6 Digits

Add from right to left.

	3 1 9 3 6 5	3 1 9 3 6 5	3 1 9 3 6 5	3 1 9 3 6 5
addend →				
addend →	+ 2 3 8 7 9	+ 2 3 8 7 9	+ 2 3 8 7 9	+ 2 3 8 7 9
Sum →	<u>4</u>	<u>44</u>	<u>244</u>	<u>343244</u>

Subtract from right to left.

	7 4 6 <sup>0</sup> 13	7 4 <sup>5</sup> 1 <sup>13</sup>	7 <sup>3</sup> 4 <sup>5</sup> 1 <sup>13</sup>	6 <sup>13</sup> 4 <sup>5</sup> 1 <sup>13</sup>
minuend →				
subtrahend →	- 9 8 5 4	- 9 8 5 4	- 9 8 5 4	- 9 8 5 4
difference →	<u>9</u>	<u>59</u>	<u>759</u>	<u>64759</u>

Add or subtract.

	a	b	c	d	e
1.	<u>4726</u> <u>+3261</u>	<u>6257</u> <u>+4238</u>	<u>7192</u> <u>+4567</u>	<u>12506</u> <u>+37324</u>	<u>92184</u> <u>+46837</u>
2.	<u>3642</u> <u>-1340</u>	<u>9350</u> <u>-1227</u>	<u>8058</u> <u>-7739</u>	<u>76429</u> <u>-32847</u>	<u>26413</u> <u>-17387</u>
3.	<u>28944</u> <u>+26375</u>	<u>59617</u> <u>+74623</u>	<u>86082</u> <u>+28379</u>	<u>15726</u> <u>+29935</u>	<u>374926</u> <u>+ 18347</u>
4.	<u>47962</u> <u>-19628</u>	<u>39741</u> <u>-21964</u>	<u>58342</u> <u>-26797</u>	<u>296378</u> <u>- 37492</u>	<u>739761</u> <u>- 43785</u>
5.	<u>636214</u> <u>+ 39488</u>	<u>929917</u> <u>+ 51485</u>	<u>236479</u> <u>+ 83515</u>	<u>259678</u> <u>+146938</u>	<u>822419</u> <u>+637597</u>
6.	<u>843715</u> <u>- 67348</u>	<u>629763</u> <u>-317687</u>	<u>374014</u> <u>-278306</u>	<u>791632</u> <u>-345956</u>	<u>945196</u> <u>-176347</u>

**Lesson 1.4** Problem Solving**SHOW YOUR WORK**

Circle Add or Subtract. Solve each problem.

1. Marcus scored 23 points in his basketball game on Friday and 19 points in his basketball game on Saturday. How many points did Marcus score in two games?

Add    Subtract

Marcus scored \_\_\_\_\_ points in two games.

2. Alisa, Jamie, and Christina are planning a movie night. The first movie is 103 minutes long and the second movie is 124 minutes long. How long will it take to watch both movies?

Add    Subtract

It will take \_\_\_\_\_ minutes to watch both movies.

3. Ms. Oakwood needs 8,391 strawberries to bake her pies. She has picked 374 strawberries. How many more strawberries does Ms. Oakwood need?

Add    Subtract

Ms. Oakwood must pick \_\_\_\_\_ more strawberries.

4. The Yuens are driving across the country. The trip is 3,281 miles. They have driven 2,596 miles. How many more miles do they have left to drive?

Add    Subtract

There are \_\_\_\_\_ miles left to drive.

5. Alicia and Peter are reading the same book. Alicia has read 297 pages and Peter has read 431 pages. How many more pages has Peter read than Alicia?

Add    Subtract

Peter has read \_\_\_\_\_ more pages than Alicia.

1.

2.

3.

4.

5.

# Lesson 2.1 Multiplying 1, 2, and 3 Digits by 1 Digit

Multiply  
6 by 3.

$$\begin{array}{r} 6 \\ \times 3 \\ \hline 18 \end{array}$$

Multiply  
8 by 3.  
Add the tens.

$$\begin{array}{r} 8 \\ \times 3 \\ \hline 24 \\ + 10 \\ \hline 25 \end{array}$$

Multiply  
2 by 8.

$$\begin{array}{r} 2 \\ \times 8 \\ \hline 16 \end{array}$$

Multiply  
3 by 8.  
Add 1 ten.

$$\begin{array}{r} 3 \\ \times 8 \\ \hline 24 \\ + 10 \\ \hline 25 \end{array}$$

Multiply  
5 by 8.  
Add 2  
hundreds.

$$\begin{array}{r} 5 \\ \times 8 \\ \hline 40 \\ + 200 \\ \hline 420 \end{array}$$

Multiply.

- |    | a  | b  | c  | d  | e  | f  |
|----|--|--|--|--|--|--|
| 1. | $\begin{array}{r} 6 \\ \times 3 \\ \hline \end{array}$   | $\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$   | $\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$   | $\begin{array}{r} 22 \\ \times 9 \\ \hline \end{array}$  | $\begin{array}{r} 17 \\ \times 6 \\ \hline \end{array}$  | $\begin{array}{r} 42 \\ \times 7 \\ \hline \end{array}$  |
| 2. | $\begin{array}{r} 74 \\ \times 6 \\ \hline \end{array}$  | $\begin{array}{r} 34 \\ \times 9 \\ \hline \end{array}$  | $\begin{array}{r} 28 \\ \times 6 \\ \hline \end{array}$  | $\begin{array}{r} 163 \\ \times 1 \\ \hline \end{array}$ | $\begin{array}{r} 317 \\ \times 4 \\ \hline \end{array}$ | $\begin{array}{r} 265 \\ \times 5 \\ \hline \end{array}$ |
| 3. | $\begin{array}{r} 836 \\ \times 4 \\ \hline \end{array}$ | $\begin{array}{r} 627 \\ \times 8 \\ \hline \end{array}$ | $\begin{array}{r} 352 \\ \times 2 \\ \hline \end{array}$ | $\begin{array}{r} 73 \\ \times 7 \\ \hline \end{array}$  | $\begin{array}{r} 65 \\ \times 9 \\ \hline \end{array}$  | $\begin{array}{r} 87 \\ \times 2 \\ \hline \end{array}$  |
| 4. | $\begin{array}{r} 26 \\ \times 5 \\ \hline \end{array}$  | $\begin{array}{r} 84 \\ \times 8 \\ \hline \end{array}$  | $\begin{array}{r} 92 \\ \times 3 \\ \hline \end{array}$  | $\begin{array}{r} 258 \\ \times 4 \\ \hline \end{array}$ | $\begin{array}{r} 736 \\ \times 8 \\ \hline \end{array}$ | $\begin{array}{r} 949 \\ \times 6 \\ \hline \end{array}$ |
| 5. | $\begin{array}{r} 705 \\ \times 5 \\ \hline \end{array}$ | $\begin{array}{r} 146 \\ \times 7 \\ \hline \end{array}$ | $\begin{array}{r} 628 \\ \times 9 \\ \hline \end{array}$ | $\begin{array}{r} 37 \\ \times 2 \\ \hline \end{array}$  | $\begin{array}{r} 97 \\ \times 1 \\ \hline \end{array}$  | $\begin{array}{r} 52 \\ \times 4 \\ \hline \end{array}$  |
| 6. | $\begin{array}{r} 916 \\ \times 5 \\ \hline \end{array}$ | $\begin{array}{r} 276 \\ \times 2 \\ \hline \end{array}$ | $\begin{array}{r} 473 \\ \times 3 \\ \hline \end{array}$ | $\begin{array}{r} 356 \\ \times 8 \\ \hline \end{array}$ | $\begin{array}{r} 575 \\ \times 4 \\ \hline \end{array}$ | $\begin{array}{r} 293 \\ \times 6 \\ \hline \end{array}$ |

## Lesson 2.2 Multiplying 2 and 3 Digits by 2 Digits

Multiply right to left.

If  $24 \times 3 = 72$ , then  
 $24 \times 30 = 720$ .

Multiply right to left.

$$\begin{array}{r} \overset{2}{2}4 \\ \times \quad 7 \\ \hline 168 \end{array} \quad \begin{array}{r} \overset{2}{2}4 \\ \times \overset{3}{3}7 \\ \hline 168 \\ +720 \\ \hline 888 \end{array} \quad \begin{array}{r} \overset{1}{2}4 \\ \times \overset{3}{3}0 \\ \hline 720 \end{array}$$

$$\begin{array}{r} 427 \\ \times \quad 1 \\ \hline 427 \end{array} \quad \begin{array}{r} 427 \\ \times \quad 61 \\ \hline 427 \\ +25620 \\ \hline 26047 \end{array} \quad \begin{array}{r} 427 \\ \times \quad 60 \\ \hline 25620 \end{array}$$

Multiply.

- |    | a   | b   | c   | d   | e   | f   |
|----|---|---|---|---|---|---|
| 1. | $\begin{array}{r} 43 \\ \times 42 \\ \hline \end{array}$  | $\begin{array}{r} 75 \\ \times 12 \\ \hline \end{array}$  | $\begin{array}{r} 52 \\ \times 28 \\ \hline \end{array}$  | $\begin{array}{r} 36 \\ \times 91 \\ \hline \end{array}$  | $\begin{array}{r} 16 \\ \times 77 \\ \hline \end{array}$  | $\begin{array}{r} 21 \\ \times 13 \\ \hline \end{array}$  |
| 2. | $\begin{array}{r} 24 \\ \times 87 \\ \hline \end{array}$  | $\begin{array}{r} 62 \\ \times 54 \\ \hline \end{array}$  | $\begin{array}{r} 96 \\ \times 32 \\ \hline \end{array}$  | $\begin{array}{r} 18 \\ \times 47 \\ \hline \end{array}$  | $\begin{array}{r} 33 \\ \times 79 \\ \hline \end{array}$  | $\begin{array}{r} 45 \\ \times 63 \\ \hline \end{array}$  |
| 3. | $\begin{array}{r} 26 \\ \times 53 \\ \hline \end{array}$  | $\begin{array}{r} 39 \\ \times 74 \\ \hline \end{array}$  | $\begin{array}{r} 44 \\ \times 81 \\ \hline \end{array}$  | $\begin{array}{r} 473 \\ \times 64 \\ \hline \end{array}$ | $\begin{array}{r} 856 \\ \times 22 \\ \hline \end{array}$ | $\begin{array}{r} 375 \\ \times 49 \\ \hline \end{array}$ |
| 4. | $\begin{array}{r} 838 \\ \times 58 \\ \hline \end{array}$ | $\begin{array}{r} 266 \\ \times 93 \\ \hline \end{array}$ | $\begin{array}{r} 372 \\ \times 46 \\ \hline \end{array}$ | $\begin{array}{r} 659 \\ \times 78 \\ \hline \end{array}$ | $\begin{array}{r} 428 \\ \times 37 \\ \hline \end{array}$ | $\begin{array}{r} 235 \\ \times 86 \\ \hline \end{array}$ |
| 5. | $\begin{array}{r} 907 \\ \times 33 \\ \hline \end{array}$ | $\begin{array}{r} 415 \\ \times 27 \\ \hline \end{array}$ | $\begin{array}{r} 364 \\ \times 82 \\ \hline \end{array}$ | $\begin{array}{r} 547 \\ \times 54 \\ \hline \end{array}$ | $\begin{array}{r} 739 \\ \times 62 \\ \hline \end{array}$ | $\begin{array}{r} 697 \\ \times 76 \\ \hline \end{array}$ |

**Lesson 3.1** Dividing 1 and 2 Digits by 1 Digit

$$\begin{array}{r}
 \text{divisor} \longrightarrow 8 \overline{) 32} \\
 \underline{- 32} \\
 0
 \end{array}$$

$\longleftarrow$  quotient  
 $\longleftarrow$  dividend

$8 \times 4 = 32$   
 So,  $32 \div 8 = 4$ .

Divide.

	a	b	c	d	e	f
1.	$3 \overline{) 9}$	$2 \overline{) 4}$	$3 \overline{) 6}$	$4 \overline{) 8}$	$1 \overline{) 7}$	$1 \overline{) 9}$
2.	$3 \overline{) 0}$	$2 \overline{) 10}$	$7 \overline{) 14}$	$2 \overline{) 6}$	$3 \overline{) 54}$	$3 \overline{) 3}$
3.	$1 \overline{) 5}$	$3 \overline{) 12}$	$6 \overline{) 12}$	$2 \overline{) 2}$	$5 \overline{) 10}$	$4 \overline{) 12}$
4.	$5 \overline{) 25}$	$4 \overline{) 16}$	$3 \overline{) 15}$	$8 \overline{) 72}$	$2 \overline{) 22}$	$3 \overline{) 21}$
5.	$8 \overline{) 24}$	$4 \overline{) 12}$	$6 \overline{) 54}$	$8 \overline{) 40}$	$4 \overline{) 36}$	$4 \overline{) 20}$
6.	$4 \overline{) 28}$	$4 \overline{) 4}$	$3 \overline{) 18}$	$6 \overline{) 18}$	$9 \overline{) 63}$	$6 \overline{) 36}$
7.	$7 \overline{) 63}$	$3 \overline{) 27}$	$4 \overline{) 32}$	$8 \overline{) 64}$	$8 \overline{) 48}$	$9 \overline{) 18}$
8.	$4 \overline{) 24}$	$9 \overline{) 72}$	$8 \overline{) 32}$	$5 \overline{) 20}$	$9 \overline{) 45}$	$6 \overline{) 30}$
9.	$6 \overline{) 24}$	$7 \overline{) 49}$	$9 \overline{) 81}$	$5 \overline{) 30}$	$3 \overline{) 21}$	$5 \overline{) 15}$
10.	$8 \overline{) 16}$	$2 \overline{) 8}$	$7 \overline{) 28}$	$7 \overline{) 42}$	$6 \overline{) 48}$	$5 \overline{) 35}$

## Lesson 3.2 Dividing 2 and 3 Digits by 1 Digit

divisor                  dividend

$$\begin{array}{r} 3 \overline{) 528} \\ \underline{-3} \phantom{0} \\ 22 \phantom{0} \end{array}$$

subtract { - 3 ↓

$$\begin{aligned} 5 \div 3 &= 1 \text{ remainder } 2 \\ 22 \div 3 &= 7 \text{ remainder } 1 \\ 18 \div 3 &= 6 \text{ remainder } 0 \end{aligned}$$

$$\begin{array}{r} 17 \\ 3 \overline{) 528} \\ \underline{-3} \phantom{0} \\ 22 \phantom{0} \\ \underline{-21} \\ 18 \end{array}$$

subtract { - 3 ↓

subtract { - 21 ↓

$$\begin{array}{r} 176 \leftarrow \text{quotient} \\ 3 \overline{) 528} \\ \underline{-3} \phantom{0} \\ 22 \phantom{0} \\ \underline{-21} \\ 18 \\ \underline{-18} \\ 0 \leftarrow \text{remainder} = 0 \end{array}$$

Divide.

- |    | a                    | b                    | c                    | d                    | e                    |
|----|----------------------|----------------------|----------------------|----------------------|----------------------|
| 1. | $4 \overline{) 42}$  | $8 \overline{) 67}$  | $6 \overline{) 51}$  | $3 \overline{) 25}$  | $9 \overline{) 82}$  |
| 2. | $5 \overline{) 82}$  | $6 \overline{) 77}$  | $4 \overline{) 99}$  | $2 \overline{) 34}$  | $7 \overline{) 44}$  |
| 3. | $6 \overline{) 132}$ | $9 \overline{) 374}$ | $4 \overline{) 849}$ | $5 \overline{) 757}$ | $3 \overline{) 216}$ |
| 4. | $2 \overline{) 875}$ | $6 \overline{) 461}$ | $8 \overline{) 639}$ | $7 \overline{) 323}$ | $4 \overline{) 572}$ |

## REDUCING FRACTIONS TO LOWEST TERMS

**A FRACTION IS IN LOWEST TERMS  
IF IT CANNOT BE REDUCED.**

Here is an example of a fraction that has been reduced to **lower terms**. It must be reduced again to **lowest terms** by dividing once more.

$$\frac{6}{12} \div \boxed{\frac{3}{3}} = \frac{2}{4} \quad \frac{2}{4} \text{ is not in lowest terms.}$$

Divide again.

$$\frac{2}{4} \div \boxed{\frac{2}{2}} = \frac{1}{2} \quad \frac{1}{2} \text{ is in lowest terms.}$$

Always try to divide the numerator and the denominator by the largest number possible when you are reducing a fraction.

Reduce these fractions to **lowest terms**. Remember to divide the numerators and the denominators by the **same** number.

$$\frac{5}{10} \div \boxed{\frac{5}{5}} = \frac{1}{2}$$

$$\frac{6}{12} \div \boxed{\frac{\quad}{\quad}} = \frac{\quad}{\quad}$$

$$\frac{4}{16} \div \boxed{\frac{\quad}{\quad}} = \frac{\quad}{\quad}$$

$$\frac{6}{8} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{9}{18} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{2}{16} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{4}{6} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{8}{12} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{9}{27} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{12}{36} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{9}{36} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{8}{20} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{12}{32} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{9}{15} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{10}{25} \div \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

Name \_\_\_\_\_



Date \_\_\_\_\_

## Equivalent Fractions

(Answer ID # 1001549)

Fill in the missing number to make two equivalent fractions.

<p>1.  <math>\frac{2}{8} = \frac{\boxed{\phantom{000}}}{4}</math></p>	<p>2.  <math>\frac{\boxed{\phantom{000}}}{10} = \frac{3}{5}</math></p>	<p>3.  <math>\frac{\boxed{\phantom{000}}}{3} = \frac{6}{9}</math></p>
<p>4.  <math>\frac{1}{2} = \frac{\boxed{\phantom{000}}}{4}</math></p>	<p>5.  <math>\frac{3}{6} = \frac{\boxed{\phantom{000}}}{2}</math></p>	<p>6.  <math>\frac{3}{4} = \frac{\boxed{\phantom{000}}}{8}</math></p>
<p>7.  <math>\frac{\boxed{\phantom{000}}}{6} = \frac{2}{3}</math></p>	<p>8.  <math>\frac{\boxed{\phantom{000}}}{5} = \frac{8}{10}</math></p>	<p>9.  <math>\frac{\boxed{\phantom{000}}}{10} = \frac{1}{5}</math></p>
<p>10.  <math>\frac{4}{8} = \frac{\boxed{\phantom{000}}}{4}</math></p>	<p>11.  <math>\frac{\boxed{\phantom{000}}}{2} = \frac{2}{4}</math></p>	<p>12.  <math>\frac{1}{3} = \frac{\boxed{\phantom{000}}}{6}</math></p>
<p>13.  <math>\frac{\boxed{\phantom{000}}}{3} = \frac{2}{6}</math></p>	<p>14.  <math>\frac{1}{2} = \frac{\boxed{\phantom{000}}}{8}</math></p>	<p>15.  <math>\frac{2}{3} = \frac{\boxed{\phantom{000}}}{9}</math></p>



## Lesson 6.3 Comparing Fractions Using LCM

$$\frac{1}{7} \bigcirc \frac{2}{3}$$

$$\frac{1 \times 3}{7 \times 3} = \frac{3}{21}$$

$$\frac{2 \times 3}{3 \times 3} = \frac{14}{21}$$

$$\frac{3}{21} < \frac{14}{21}$$

To compare fractions without pictures, the denominators must be the same. When you have unlike denominators, find the **least common multiple (LCM)** and rename the fractions. In the example, the denominators are 3 and 7, so find the LCM of 3 and 7.

Multiples of 3: 3, 6, 9, 12, 15, 18, **21**, 24

Multiples of 7: 7, 14, **21**, 28

The least common multiple of 3 and 7 is 21. To change each fraction so it has the same denominator, multiply both the numerator and denominator by the same number. Look at the numerator to determine the larger fraction.

Use  $<$ ,  $>$ , or  $=$  to compare the fractions. Show your work.

	a	b
1.	$\frac{4}{8} \bigcirc \frac{2}{10}$	$\frac{1}{5} \bigcirc \frac{2}{10}$
2.	$\frac{3}{8} \bigcirc \frac{10}{12}$	$\frac{3}{12} \bigcirc \frac{1}{3}$
3.	$\frac{2}{8} \bigcirc \frac{1}{4}$	$\frac{3}{6} \bigcirc \frac{4}{8}$

## Lesson 6.4 Adding Fractions with Like Denominators

$$\frac{2}{8} + \frac{5}{8}$$

↑      ↑

**Like denominators**  
are the same number.

Add the numerators.

$$\frac{2}{8} + \frac{5}{8} = \frac{2+5}{8} = \frac{7}{8}$$

Write the sum over the  
common denominator.

Add.

<p>1. <math>\frac{3}{12} + \frac{8}{12} = \underline{\hspace{2cm}}</math></p>	<p>2. <math>\frac{1}{10} + \frac{3}{10} = \underline{\hspace{2cm}}</math></p>	<p>3. <math>\frac{3}{5} + \frac{1}{5} = \underline{\hspace{2cm}}</math></p>	<p>4. <math>\frac{2}{5} + \frac{1}{5} = \underline{\hspace{2cm}}</math></p>
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<p>4. <math>\frac{3}{8}</math></p>	<p>5. <math>\frac{2}{8}</math></p>	<p>6. <math>\frac{3}{12}</math></p>	<p>7. <math>\frac{4}{12}</math></p>	<p>8. <math>\frac{1}{6}</math></p>	<p>9. <math>\frac{1}{6}</math></p>	<p>10. <math>\frac{2}{6}</math></p>	<p>11. <math>\frac{1}{8}</math></p>
+8	+8	+12	+12	+6	+6	+6	+8

<p>5. <math>\frac{5}{12}</math></p>	<p>6. <math>\frac{3}{7}</math></p>	<p>7. <math>\frac{7}{10}</math></p>	<p>8. <math>\frac{3}{5}</math></p>	<p>9. <math>\frac{8}{12}</math></p>
+12	+7	+10	+5	+12

<p>6. <math>\frac{5}{11}</math></p>	<p>7. <math>\frac{1}{4}</math></p>	<p>8. <math>\frac{1}{2}</math></p>	<p>9. <math>\frac{5}{7}</math></p>	<p>10. <math>\frac{3}{9}</math></p>
+11	+4	+2	+7	+9

**Lesson 6.5** Subtracting Fractions with Like Denominators

$$\begin{array}{r} \frac{7}{12} - \frac{5}{12} \\ \uparrow \quad \uparrow \end{array}$$

**Like denominators**  
are the same number.

Subtract the numerators.

$$\frac{7}{12} - \frac{5}{12} = \frac{7-5}{12} = \frac{2}{12}$$

Write the difference over the  
common denominator.

Subtract.

	a	b	c	d	e
1.	$\frac{11}{12}$ $-\frac{3}{12}$ <hr/>	$\frac{7}{10}$ $-\frac{3}{10}$ <hr/>	$\frac{3}{4}$ $-\frac{1}{4}$ <hr/>	$\frac{6}{7}$ $-\frac{5}{7}$ <hr/>	$\frac{4}{5}$ $-\frac{3}{5}$ <hr/>

2.	$\frac{5}{10}$ $-\frac{3}{10}$ <hr/>	$\frac{8}{12}$ $-\frac{7}{12}$ <hr/>	$\frac{4}{5}$ $-\frac{2}{5}$ <hr/>	$\frac{7}{10}$ $-\frac{4}{10}$ <hr/>	$\frac{5}{8}$ $-\frac{1}{8}$ <hr/>
----	--	--	--	--	--

3.	$\frac{9}{10}$ $-\frac{3}{10}$ <hr/>	$\frac{7}{11}$ $-\frac{5}{11}$ <hr/>	$\frac{8}{9}$ $-\frac{1}{9}$ <hr/>	$\frac{4}{5}$ $-\frac{2}{5}$ <hr/>	$\frac{8}{9}$ $-\frac{6}{9}$ <hr/>
----	--	--	--	--	--

4.	a $\frac{5}{7} - \frac{3}{7} =$ _____	b $\frac{7}{12} - \frac{3}{12} =$ _____	c $\frac{8}{9} - \frac{8}{9} =$ _____	d $\frac{12}{12} - \frac{8}{12} =$ _____
5.	$\frac{9}{12} - \frac{7}{12} =$ _____	$\frac{4}{4} - \frac{3}{4} =$ _____	$\frac{9}{10} - \frac{7}{10} =$ _____	$\frac{3}{3} - \frac{1}{3} =$ _____
6.	$\frac{5}{8} - \frac{1}{8} =$ _____	$\frac{6}{7} - \frac{5}{7} =$ _____	$\frac{11}{12} - \frac{8}{12} =$ _____	$\frac{7}{10} - \frac{0}{10} =$ _____

# Lesson 6.6 Decomposing Fractions

$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$$

$$\frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{3}{4}$$





$$\frac{3}{4}$$

OR

$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

Decompose each fraction in two ways. Write two equations to show your thinking.

	a	b
1.	$\frac{3}{5}$  $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$ $\frac{1}{5} + \frac{1}{5} + \frac{1}{5} = \frac{3}{5}$ <p style="text-align: center;"><b>OR</b></p>  $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$	$\frac{5}{6}$
2.	$\frac{4}{12}$	$\frac{3}{8}$

**Lesson 7.3** Liquid Volume (cups, pints, quarts, and gallons)**Conversion Table**

1 cup (c.) = 8 ounces (oz.)

1 pint (pt.) = 2 cups (c.)

1 quart (qt.) = 2 pints (pt.)

1 quart (qt.) = 4 cups (c.)

1 gallon (gal.) = 4 quarts (qt.)

1 gallon (gal.) = 8 pints (pt.)

1 gallon (gal.) = 16 cups (c.)

When converting from  
more to less, multiply.

7 qt. = \_\_\_\_\_ pt.

Know: 1 qt. = 2 pt.

$7 \times 2 = 14$

7 qt. = 14 pt.

When converting from  
less to more, divide.

16 qt. = \_\_\_\_\_ gal.

Know: 4 qt. = 1 gal.

$16 \div 4 = 4$

16 qt. = 4 gal.

Complete the following.

**a**

1. 2 gal. = \_\_\_\_\_ qt.

2. 24 qt. = \_\_\_\_\_ gal.

3. 14 pt. = \_\_\_\_\_ qt.

4. 48 c. = \_\_\_\_\_ pt.

5. 10 gal. = \_\_\_\_\_ qt.

6. 12 gal. = \_\_\_\_\_ qt.

7. 30 pt. = \_\_\_\_\_ qt.

8. 18 c. = \_\_\_\_\_ pt.

9. 150 qt. = \_\_\_\_\_ pt.

10. 88 oz. = \_\_\_\_\_ c.

**b**

4 pt. = \_\_\_\_\_ qt.

16 oz. = \_\_\_\_\_ c.

28 qt. = \_\_\_\_\_ gal.

32 oz. = \_\_\_\_\_ c.

30 pt. = \_\_\_\_\_ c.

22 pt. = \_\_\_\_\_ qt.

20 c. = \_\_\_\_\_ oz.

44 pt. = \_\_\_\_\_ c.

200 c. = \_\_\_\_\_ pt.

16 qt. = \_\_\_\_\_ gal.

**c**

12 c. = \_\_\_\_\_ pt.

10 qt. = \_\_\_\_\_ pt.

14 pt. = \_\_\_\_\_ c.

14 c. = \_\_\_\_\_ pt.

18 c. = \_\_\_\_\_ pt.

64 oz. = \_\_\_\_\_ c.

40 qt. = \_\_\_\_\_ gal.

80 qt. = \_\_\_\_\_ pt.

40 c. = \_\_\_\_\_ oz.

50 qt. = \_\_\_\_\_ pt.

**Lesson 7.4** Weight (ounces, pounds, and tons)**Conversion Table**When converting  
from more to less,  
multiply.When converting from  
less to more, divide.

one-half pound (lb.) = 8 ounces (oz.)

1 pound (lb.) = 16 ounces (oz.)

one-half ton (T.) = 1,000 pounds (lb.)

1 ton (T.) = 2,000 pounds (lb.)

5 lb. = \_\_\_\_\_ oz.

Know:

1 lb. = 16 oz.

 $5 \times 16 = 80$ 

5 lb. = 80 oz.

6,000 lb. = \_\_\_\_\_ T.

Know:

2,000 lb. = 1 T.

 $6,000 \div 2,000 = 3$ 

6,000 lb. = 3 T.

Complete the following.

1. 32 oz. = <sup>a</sup>\_\_\_\_\_ lb.

6,000 lb. = <sup>b</sup>\_\_\_\_\_ T.

4 T. = <sup>c</sup>\_\_\_\_\_ lb.

2. 40 lb. = \_\_\_\_\_ oz.

64 oz. = \_\_\_\_\_ lb.

24,000 lb. = \_\_\_\_\_ T.

3. 1,000 lb. = \_\_\_\_\_ T.

8 oz. = \_\_\_\_\_ lb.

18,000 lb. = \_\_\_\_\_ T.

4. 8 lb. = \_\_\_\_\_ oz.

12 lb. = \_\_\_\_\_ oz.

10,000 lb. = \_\_\_\_\_ T.

	Tons	Pounds	Ounces
5.	5	_____	160,000
6.	_____	4,000	64,000
7.	3	6,000	_____
8.	4	8,000	_____
9.	_____	2,000	32,000
10.	6	12,000	_____
11.	10	_____	320,000

**Lesson 7.1** Units of Length (inches, feet, yards, and miles)

12 inches = 1 foot (ft.)
3 feet = 1 yard (yd.)
36 inches = 1 yard (yd.)
1,760 yards = 1 mile (mi.)
5,280 feet = 1 mile (mi.)

6 feet = \_\_\_\_\_ inches

$(6 \text{ feet} \times 12 \text{ inches})$

$6 \times 12 = 72$

6 feet = 72 inches

72 feet = \_\_\_\_\_ yards

$$\begin{array}{r} 24 \\ 3 \overline{)72} \\ \underline{6} \\ 12 \end{array}$$

72 feet = 24 yards

Complete the following.

**a**

1. 5 yd. = \_\_\_\_\_ ft.

2. 48 in. = \_\_\_\_\_ ft.

3. 3,000 ft. = \_\_\_\_\_ yd.

4. 12 in. = \_\_\_\_\_ ft.

5. 360 in. = \_\_\_\_\_ yd.

6. 7 mi. = \_\_\_\_\_ yd.

7. 10 mi. = \_\_\_\_\_ ft.

8. 132 in. = \_\_\_\_\_ ft.

9. 72 ft. = \_\_\_\_\_ yd.

10. 8 mi. = \_\_\_\_\_ yd.

**b**

8 ft. = \_\_\_\_\_ in.

3 mi. = \_\_\_\_\_ yd.

24 in. = \_\_\_\_\_ ft.

26 yd. = \_\_\_\_\_ in.

10 ft. = \_\_\_\_\_ in.

2,400 in. = \_\_\_\_\_ ft.

600 in. = \_\_\_\_\_ ft.

50 yd. = \_\_\_\_\_ in.

36 in. = \_\_\_\_\_ yd.

48 ft. = \_\_\_\_\_ yd.

**c**

72 yd. = \_\_\_\_\_ ft.

24 yd. = \_\_\_\_\_ in.

2 mi. = \_\_\_\_\_ ft.

12 ft. = \_\_\_\_\_ yd.

720 yd. = \_\_\_\_\_ ft.

324 ft. = \_\_\_\_\_ yd.

6 ft. = \_\_\_\_\_ in.

36 in. = \_\_\_\_\_ ft.

3,636 in. = \_\_\_\_\_ ft.

120 in. = \_\_\_\_\_ ft.

# Lesson 6.8 Understanding Decimals to Tenths



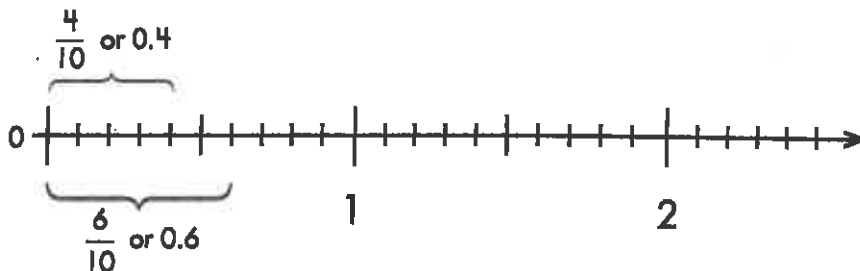
$\frac{4}{10}$  of the box is shaded.

$\frac{4}{10} =$  four tenths  $= 0.4$

$\frac{6}{10}$  of the box is unshaded.

$\frac{6}{10} =$  six tenths  $= 0.6$

Locate on a number line.



Write the decimal and fraction for each box.

a

b

c



\_\_\_\_\_ or \_\_\_\_\_

\_\_\_\_\_ or \_\_\_\_\_

\_\_\_\_\_ or \_\_\_\_\_

Write the decimal equivalent to the given fraction.

a

b

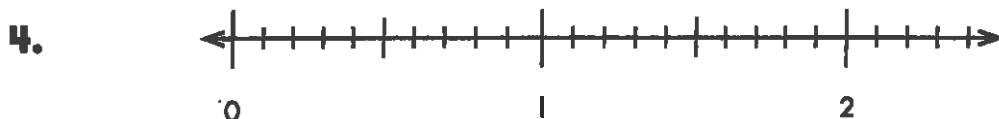
c

d

2.  $\frac{2}{10} =$  \_\_\_\_\_  $\frac{6}{10} =$  \_\_\_\_\_  $\frac{9}{10} =$  \_\_\_\_\_  $\frac{4}{10} =$  \_\_\_\_\_

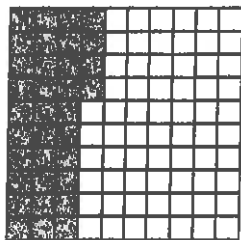
3.  $\frac{3}{100} =$  \_\_\_\_\_  $\frac{4}{1,000} =$  \_\_\_\_\_  $\frac{8}{100} =$  \_\_\_\_\_  $\frac{5}{1,000} =$  \_\_\_\_\_

Locate  $\frac{2}{10}$  and 0.8 on the number line.





# Lesson 6.9 Understanding Decimals to Hundredths



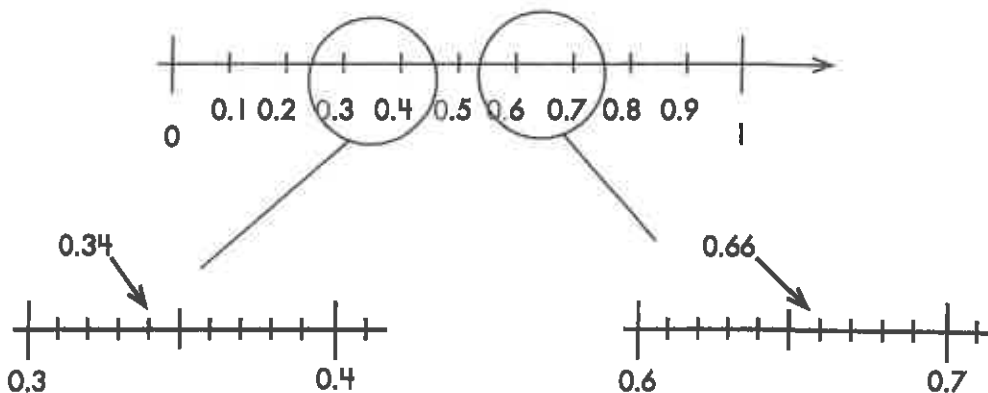
$\frac{34}{100}$  of the box is shaded.

$\frac{34}{100} =$  four tenths  $= 0.34$

$\frac{66}{100}$  of the box is unshaded.

$\frac{66}{100} =$  six tenths  $= 0.66$

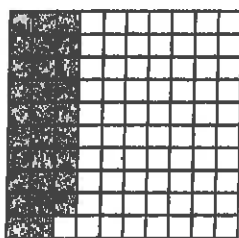
Locate on a number line.



Write the decimal and fraction for each box.

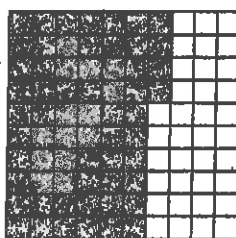
1.

a



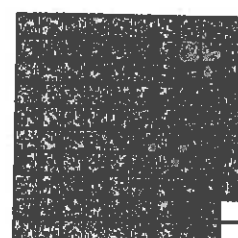
\_\_\_\_\_ or \_\_\_\_\_

b



\_\_\_\_\_ or \_\_\_\_\_

c



\_\_\_\_\_ or \_\_\_\_\_

Locate  $\frac{47}{100}$  and 0.83 on the number line.

2.

