



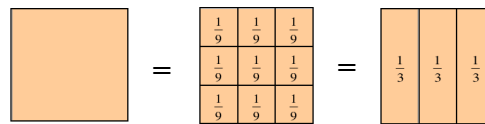
**4.6 Addition and Subtraction of Mixed Numbers**

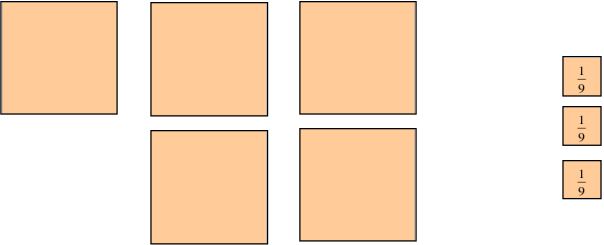
Models of Addition of Mixed Numbers

**Example (a)**

I found a dollar and one quarter in the pocket of my jacket.		$1\frac{1}{4}$
I found three dollars and 2 quarters in the pocket of my sweater.		$+ 3\frac{2}{4}$ <hr style="width: 10%; margin-left: 0;"/>
How much money in total did I find?	4 dollars      3 quarters	$4\frac{3}{4}$

**Example (b)**

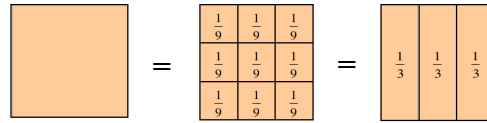


$  \begin{array}{r}  \phantom{+} \quad \square \quad \square \\  + \quad \square \quad \square \quad \square \\  \hline  \end{array}  $	$  \begin{array}{r}  2\frac{2}{9} \\  + 3\frac{1}{9} \\  \hline  \end{array}  $
	$  5\frac{3}{9} = 5\frac{1}{3}  $



**Addition of Mixed Numbers that Require Renaming**

**Example**



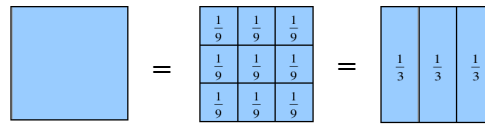
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<i>Demonstration Problems</i>	<i>Practice Problems</i>
<p>Add and simplify by using mixed numbers.</p> <p><b>3. (a)</b> <math>5\frac{5}{9} + 3\frac{7}{9} =</math></p>	<p>Add and simplify by using mixed numbers.</p> <p><b>3. (b)</b> <math>3\frac{7}{8} + 4\frac{3}{8} =</math></p>
<p>Add and simplify by using improper fractions.</p> <p><b>4. (a)</b> <math>5\frac{5}{9} + 3\frac{7}{9} =</math></p>	<p>Add and simplify by using improper fractions.</p> <p><b>4. (b)</b> <math>3\frac{7}{8} + 4\frac{3}{8} =</math></p>
<p>Answers: <b>3. (b)</b> <math>8\frac{1}{4}</math>; <b>4. (b)</b> <math>8\frac{1}{4}</math></p>	



**Subtraction of Mixed Numbers that Require Renaming**

**Example**



	$3\frac{4}{9}$ $- 1\frac{7}{9}$ <hr style="width: 50%; margin: auto;"/>
	$2\frac{13}{9}$ $- 1\frac{7}{9}$ <hr style="width: 50%; margin: auto;"/>
	$1\frac{6}{9} = 1\frac{2}{3}$



