

# Adding and Subtracting Fractions Homework



No calculator!

<h2 style="text-align: center;">Literacy</h2> <p> <math>\frac{5}{7}</math> ← Numerator (<i>number</i>)  <math>\frac{5}{7}</math> ← Denominator (<i>name/type</i>)                 </p> <p>Equivalent fractions have equal value.</p> <p>Fractions with a common denominator have the same type (number on bottom).</p>	<h2 style="text-align: center;">Research</h2> <p>Use a calculator to complete the table:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Fraction</th> <th style="width: 33%;">Calculation</th> <th style="width: 33%;">Decimal</th> </tr> </thead> <tbody> <tr> <td><math>\frac{1}{2}</math></td> <td><math>1 \div 2</math></td> <td>0.5</td> </tr> <tr> <td><math>\frac{2}{3}</math></td> <td><math>2 \div 3</math></td> <td>0.666 ...</td> </tr> <tr> <td><math>\frac{1}{4}</math></td> <td></td> <td></td> </tr> <tr> <td><math>\frac{3}{5}</math></td> <td></td> <td></td> </tr> <tr> <td><math>\frac{4}{6}</math></td> <td></td> <td></td> </tr> </tbody> </table>	Fraction	Calculation	Decimal	$\frac{1}{2}$	$1 \div 2$	0.5	$\frac{2}{3}$	$2 \div 3$	0.666 ...	$\frac{1}{4}$			$\frac{3}{5}$			$\frac{4}{6}$			<h2 style="text-align: center;">Memory</h2> <ul style="list-style-type: none"> <li>To add or subtract fractions, they must first have a <b>common denominator</b>, and the answer will have the <b>same denominator</b>.</li> <li>Sometimes no change is necessary. Eg: <math>\frac{1}{7} + \frac{3}{7} = \frac{4}{7}</math></li> <li>Sometimes one fraction needs to change: Eg: <math>\frac{1}{6} + \frac{1}{2} = \frac{1}{6} + \frac{3}{6} = \frac{4}{6} = \frac{2}{3}</math></li> <li>Sometimes both need to change: Eg: <math>\frac{1}{7} + \frac{1}{2} = \frac{2}{14} + \frac{7}{14} = \frac{9}{14}</math></li> </ul>
Fraction	Calculation	Decimal																		
$\frac{1}{2}$	$1 \div 2$	0.5																		
$\frac{2}{3}$	$2 \div 3$	0.666 ...																		
$\frac{1}{4}$																				
$\frac{3}{5}$																				
$\frac{4}{6}$																				
<h2 style="text-align: center;">Skills</h2> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>1) <math>\frac{2}{9} + \frac{5}{9} =</math></p> <p>2) <math>\frac{7}{12} + \frac{1}{4} =</math></p> <p>3) <math>\frac{2}{3} - \frac{1}{30} =</math></p> <p>4) <math>\frac{7}{13} + \frac{3}{26} =</math></p> </div> <div style="width: 48%;"> <p>5) <math>\frac{1}{2} + \frac{1}{5} =</math></p> <p>6) <math>\frac{5}{8} - \frac{3}{10} =</math></p> <p>7) <math>\frac{7}{12} + \frac{3}{8} =</math></p> <p>8) <math>\frac{19}{20} - \frac{23}{30} =</math></p> </div> </div> <p style="text-align: center; margin-top: 10px;"><i>Show ALL your working.</i></p>		<h2 style="text-align: center;">Stretch</h2> <p>1) What is the smallest number which divides by 5 and by 3? (the lowest number that's in the 5 times table and the 3 times table)</p> <p>2) What is the smallest number which divides by 5, 3 and 10?</p> <p>3) <math>\frac{1}{5} + \frac{1}{3} + \frac{1}{10} =</math></p>																		

You need to **read** and **learn** the **Literacy** and **Memory** sections, **look up** answers to the **Research** section, **answer all** questions from the **Skills** section, and (unless you have already spent more than 45 minutes on this homework) **attempt** the **Stretch** section. Answers can be written on the sheet or in your book if you need more space.

# Adding and Subtracting Fractions Homework SOLUTIONS



No calculator!

<p style="text-align: center;"><b>Literacy</b></p> <p><math>\frac{5}{7}</math> ← <b>Numerator</b> (<i>number</i>)  <math>\frac{5}{7}</math> ← <b>Denominator</b> (<i>name/type</i>)</p> <p><b>Equivalent</b> fractions have <b>equal value</b>.</p> <p>Fractions with a <b>common denominator</b> have the <b>same type</b> (number on bottom).</p>	<p style="text-align: center;"><b>Research</b></p> <p>Use a calculator to complete the table:</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Fraction</th> <th>Calculation</th> <th>Decimal</th> </tr> </thead> <tbody> <tr> <td><math>\frac{1}{2}</math></td> <td><math>1 \div 2</math></td> <td>0.5</td> </tr> <tr> <td><math>\frac{2}{3}</math></td> <td><math>2 \div 3</math></td> <td>0.333 ...</td> </tr> <tr> <td><math>\frac{1}{4}</math></td> <td><b><math>1 \div 4</math></b></td> <td><b>0.25</b></td> </tr> <tr> <td><math>\frac{3}{5}</math></td> <td><b><math>3 \div 5</math></b></td> <td><b>0.6</b></td> </tr> <tr> <td><math>\frac{4}{6}</math></td> <td><b><math>4 \div 6</math></b></td> <td><b>0.666 ...</b></td> </tr> </tbody> </table>	Fraction	Calculation	Decimal	$\frac{1}{2}$	$1 \div 2$	0.5	$\frac{2}{3}$	$2 \div 3$	0.333 ...	$\frac{1}{4}$	<b><math>1 \div 4</math></b>	<b>0.25</b>	$\frac{3}{5}$	<b><math>3 \div 5</math></b>	<b>0.6</b>	$\frac{4}{6}$	<b><math>4 \div 6</math></b>	<b>0.666 ...</b>	<p style="text-align: center;"><b>Memory</b></p> <ul style="list-style-type: none"> <li>To add or subtract fractions, they must first have a <b>common denominator</b>, and the answer will have the <b>same denominator</b>.</li> <li>Sometimes no change is necessary. Eg: <math>\frac{1}{7} + \frac{3}{7} = \frac{4}{7}</math></li> <li>Sometimes one fraction needs to change: Eg: <math>\frac{1}{6} + \frac{1}{2} = \frac{1}{6} + \frac{3}{6} = \frac{4}{6} = \frac{2}{3}</math></li> <li>Sometimes both need to change: Eg: <math>\frac{1}{7} + \frac{1}{2} = \frac{2}{14} + \frac{7}{14} = \frac{9}{14}</math></li> </ul>
Fraction	Calculation	Decimal																		
$\frac{1}{2}$	$1 \div 2$	0.5																		
$\frac{2}{3}$	$2 \div 3$	0.333 ...																		
$\frac{1}{4}$	<b><math>1 \div 4</math></b>	<b>0.25</b>																		
$\frac{3}{5}$	<b><math>3 \div 5</math></b>	<b>0.6</b>																		
$\frac{4}{6}$	<b><math>4 \div 6</math></b>	<b>0.666 ...</b>																		
<p style="text-align: center;"><b>Skills</b></p> <p>1) <math>\frac{2}{9} + \frac{5}{9} = \frac{7}{9}</math></p> <p>2) <math>\frac{7}{12} + \frac{1}{4} = \frac{7}{12} + \frac{3}{12} = \frac{10}{12} = \frac{5}{6}</math></p> <p>3) <math>\frac{2}{3} - \frac{1}{30} = \frac{20}{30} - \frac{1}{30} = \frac{19}{30}</math></p> <p>4) <math>\frac{7}{13} + \frac{3}{26} = \frac{14}{26} + \frac{3}{26} = \frac{17}{26}</math></p> <p>5) <math>\frac{1}{2} + \frac{1}{5} = \frac{5}{10} + \frac{2}{10} = \frac{7}{10}</math></p> <p>6) <math>\frac{5}{8} - \frac{3}{10} = \frac{25}{40} - \frac{12}{40} = \frac{13}{40}</math></p> <p>7) <math>\frac{7}{12} + \frac{3}{8} = \frac{14}{24} + \frac{9}{24} = \frac{23}{24}</math></p> <p>8) <math>\frac{19}{20} - \frac{23}{30} = \frac{57}{60} - \frac{46}{60} = \frac{11}{60}</math></p> <p style="text-align: center;"><i>Show ALL your working.</i></p>		<p style="text-align: center;"><b>Stretch</b></p> <p>1) What is the smallest number which divides by 5 and by 3? (the lowest number that's in the 5 times table and the 3 times table) <b>15</b></p> <p>2) What is the smallest number which divides by 5, 3 and 10? <b>30</b></p> <p>3) <math>\frac{1}{5} + \frac{1}{3} + \frac{1}{10} = \frac{6}{30} + \frac{10}{30} + \frac{3}{30} = \frac{19}{30}</math></p>																		

You need to **read** and **learn** the **Literacy** and **Memory** sections, **look up** answers to the **Research** section, **answer all** questions from the **Skills** section, and (unless you have already spent more than 45 minutes on this homework) **attempt** the **Stretch** section. Answers can be written on the sheet or in your book if you need more space.