

	Learning Objective and what to include	Teaching and Models	Task and expected outcomes
1	<p><u>Learning Question:</u> Can I add and subtract fractions with different denominators</p>	<div style="background-color: yellow; text-align: center; padding: 5px;">Adding Fractions</div> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> $\frac{3}{4} + \frac{1}{3} = \frac{9}{12} + \frac{4}{12}$ $= \frac{13}{12}$ $= 1\frac{1}{12}$ </div> <p style="color: red; text-align: center;">You need to make the denominators the same!</p> <div style="background-color: purple; color: white; text-align: center; padding: 5px;">Subtracting Fractions</div> <div style="border: 1px solid purple; padding: 10px; margin: 10px 0;"> $\frac{6}{7} - \frac{3}{4} = \frac{24}{28} - \frac{21}{28}$ $= \frac{3}{28}$ </div> <p style="color: red; text-align: center;">You need to make the denominators the same!</p>	<p>1) $\frac{1}{4} + \frac{1}{2} =$</p> <p>2) $\frac{1}{8} + \frac{1}{4} =$</p> <p>3) $\frac{3}{8} + \frac{1}{2} =$</p> <p>4) $\frac{1}{6} + \frac{2}{3} =$</p> <p>5) $\frac{1}{10} + \frac{2}{5} =$</p>

Learning Question: Can I add and subtract mixed numbers?

$$1\frac{1}{4} + 2\frac{1}{6} =$$

$$1 + 2 = 3$$

$$\frac{1^{\times 3}}{4^{\times 3}} + \frac{1^{\times 2}}{6^{\times 2}} = \frac{3}{12} + \frac{2}{12} = \frac{5}{12}$$

$$3 + \frac{5}{12} = 3\frac{5}{12}$$

$$3\frac{4}{7} + 4\frac{5}{8} =$$

$$3 + 4 = 7$$

$$\frac{4^{\times 8}}{7^{\times 8}} + \frac{5^{\times 7}}{8^{\times 7}} = \frac{32}{56} + \frac{35}{56} = \frac{67}{56}$$

$$\frac{67}{56} = 1\frac{11}{56} \quad 7 + 1\frac{11}{56} = 8\frac{11}{56}$$

$$1. \quad 3\frac{1}{4} + 3\frac{5}{8} = \underline{\hspace{2cm}} \quad 2. \quad 9\frac{9}{10} + 2\frac{3}{5} = \underline{\hspace{2cm}}$$

$$3. \quad 3\frac{5}{11} + 7\frac{2}{3} = \underline{\hspace{2cm}} \quad 4. \quad 5\frac{2}{8} + 2\frac{4}{10} = \underline{\hspace{2cm}}$$

$$5. \quad 8\frac{7}{9} + 5\frac{9}{11} = \underline{\hspace{2cm}} \quad 6. \quad 6\frac{2}{7} + 7\frac{1}{2} = \underline{\hspace{2cm}}$$

3

Learning Question: Can I convert a fraction into a decimal?

$$\frac{1}{4} = 1 \div 4 = 0.25$$

$$\begin{array}{r} 0.25 \\ 4 \overline{) 1.000} \\ \underline{4} \\ 6 \\ \underline{8} \\ 8 \\ \underline{8} \\ 0 \end{array}$$

$$\frac{3}{5} = 5 \overline{) 3.000}$$

$$\begin{array}{r} 0.6 \\ 5 \overline{) 3.000} \\ \underline{30} \\ 0 \end{array}$$

$$\frac{1}{4} = \quad \frac{1}{3} = \quad \frac{1}{6} =$$

$$\frac{1}{8} = \quad \frac{1}{10} = \quad \frac{1}{5} =$$

4

Learning Question: Can I relate multiplying fractions to finding amounts of fractions?

Complete:
2 lots of $\frac{1}{10} = \square$ $\frac{1}{10}$ of 2 = \square

$$\frac{2}{1} \times \frac{1}{10} = \frac{2}{10}$$

$$5 \times 6 = 30 \quad \frac{1}{10} \times \frac{2}{1} = \frac{2}{10}$$

$$6 \times 5 = 30$$

$$8 \div 2 = 4 \quad \frac{2}{10} = \frac{1}{5}$$

$$2 \div 8 = \frac{1}{4}$$

$$6 \text{ lots of } \square = 3 \quad \square \text{ of } 6 = 3$$

$$8 \text{ lots of } \frac{1}{4} = \square \quad \frac{1}{4} \text{ of } 8 = \square$$

Which method would you use to complete these calculations: multiply the fractions or find the fraction of an amount?

Explain your choice for each one.
Compare your method to your partner.

$$25 \times \frac{3}{5} \text{ or } \frac{3}{5} \text{ of } 25$$

$$6 \times \frac{2}{3} \text{ or } \frac{2}{3} \text{ of } 6$$

$$5 \times \frac{3}{8} \text{ or } \frac{3}{8} \text{ of } 5$$

$$\frac{3}{5} \times \frac{25}{1} = \frac{75}{5}$$

$$\frac{25}{1} \times \frac{3}{5} = \frac{75}{5}$$

$$\begin{array}{r} 5 \overline{) 75} \\ \underline{50} \\ 25 \\ \underline{25} \\ 0 \end{array}$$

Learning Question: Can I place fractions in number sequences? Spicy

$$\frac{3}{4}, \frac{0}{4}, 1\frac{3}{4}, 2\frac{1}{4} \quad \frac{3}{4} + \frac{1 \times 2}{2 \times 1} = \frac{3}{4} + \frac{2}{4} = \frac{5}{4}$$

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

Rule: Add $\frac{1}{3}$ each time

$$1) \frac{1}{3}, \frac{2}{3}, 1 \dots$$

Rule: Add $\frac{2}{5}$ each time

$$2) \frac{3}{5}, 1, 1\frac{2}{5} \dots$$

Rule: Add $\frac{3}{7}$ each time

$$3) \frac{2}{7}, \frac{5}{7}, 1\frac{1}{7} \dots$$