

Mixed Numbers

- 1** Re-write this mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up.

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

$$= \frac{4}{4} + \frac{4}{4} + \frac{1}{4} = \left(\frac{9}{4}\right)$$

- 2** Re-write this mixed number as a sum of 'whole fractions' and a proper fraction. Then add those fractions up.

$$3\frac{2}{5} = 1 + 1 + 1 + \frac{2}{5}$$

$$= \frac{5}{5} + \frac{5}{5} + \frac{5}{5} + \frac{2}{5} = \left(\frac{17}{5}\right)$$

- 3** Redo problem 2 using multiplication instead of repeated addition like you saw in the video. (Show your work.)

$$3\frac{2}{5} = 3 \times \frac{5}{5} + \frac{2}{5}$$

$$= \frac{15}{5} + \frac{2}{5} = \left(\frac{17}{5}\right)$$

- 4** Use the method you used in problem 3 to convert this mixed number into an improper fraction.

$$8\frac{1}{3} = 8 \times \frac{3}{3} + \frac{1}{3}$$

$$= \frac{24}{3} + \frac{1}{3} = \left(\frac{25}{3}\right)$$

- 5** Subtract a 'whole fraction' from this improper fraction. Is the leftover fraction proper or improper?

$$\frac{9}{4} - \frac{4}{4} = \frac{5}{4} \quad \text{Improper}$$

- 6** How many 'whole fractions' could be subtracted from this improper fraction? (Hint: use division)

$$\frac{20}{3} \quad \begin{array}{r} \textcircled{6} \\ 3 \overline{)20} \\ \underline{-18} \\ 2 \end{array}$$

- 7** Convert this improper fraction into a mixed number using division.

$$\frac{10}{7} = \left(1\frac{3}{7}\right) \quad \begin{array}{r} 1 \\ 7 \overline{)10} \\ \underline{-7} \\ 3 \end{array}$$

- 8** Convert this improper fraction into a mixed number using division.

$$\frac{9}{4} = \left(2\frac{1}{4}\right) \quad \begin{array}{r} 2 \\ 4 \overline{)9} \\ \underline{-8} \\ 1 \end{array}$$

- 9** Convert this improper fraction into a mixed number using division.

$$\frac{15}{4} = \left(3\frac{3}{4}\right) \quad \begin{array}{r} 3 \\ 4 \overline{)15} \\ \underline{-12} \\ 3 \end{array}$$

- 10** Convert this improper fraction into a mixed number using division.

$$\frac{28}{5} = \left(5\frac{3}{5}\right) \quad \begin{array}{r} 5 \\ 5 \overline{)28} \\ \underline{-25} \\ 3 \end{array}$$