



Colin and Coco's Deliberate Practice

Year 5 Unit 11A **Answers**

Fractions





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This pack of deliberate practice is designed to be used flexibly to secure the manageable steps of this unit.

The table below indicates which activities are linked to which manageable steps.

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Calculate:

Do It 1

$$\frac{1}{4} + \frac{1}{8} = \boxed{\frac{3}{8}}$$

$$\frac{3}{8} + \frac{1}{4} = \boxed{\frac{5}{8}}$$

$$\frac{4}{15} + \frac{1}{5} = \boxed{\frac{7}{15}}$$

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

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

$$\frac{2}{3} + \frac{1}{12} = \boxed{\frac{9}{12}}$$

$$\frac{1}{3} + \frac{1}{6} = \boxed{\frac{3}{6}}$$

$$\frac{2}{3} + \frac{1}{6} = \boxed{\frac{5}{6}}$$

$$\frac{1}{3} + \frac{2}{6} + \frac{1}{12} = \boxed{\frac{9}{12}}$$

$$\frac{1}{8} + \frac{3}{4} = \boxed{\frac{7}{8}}$$

$$\frac{3}{5} + \frac{3}{10} = \boxed{\frac{9}{10}}$$

$$\frac{1}{4} + \frac{1}{8} + \frac{1}{2} = \boxed{\frac{7}{8}}$$

Challenge It 1

Using the digits 3, 5, 7 and 9 how many different improper fractions can you make?
Convert them all to mixed numbers.

$$\begin{array}{r} 1 \boxed{3} \\ \hline \boxed{5} \end{array}$$

$$2 \frac{3}{5}$$

Possible solution

Which is the smallest? Which is the largest?



Mixed Numbers Game

Play It 1

You need:

0 - 9 dice

0 - 10 landmarked number line

To play:

Take it in turns to throw the dice to get three different digits.

(If you throw 0 throw again.)

Make a mixed number by using the numbers as the denominator, the numerator and the whole number.

The denominator must be greater than the numerator.

Plot the mixed number on the number line, writing it as an improper fraction too.

Example:

Player 1 throws 1, 6, and 9
makes $6\frac{1}{9}$

plots $6\frac{1}{9}$ and writes $\frac{55}{9}$

To win:

The winner is the first player to plot 4 of their points without their opponent's points in between.



Do It 2

Calculate writing your answer as a mixed number:

$$\frac{1}{4} + \frac{7}{8} = 1\frac{1}{8}$$

$$\frac{7}{8} + \frac{3}{4} = 1\frac{5}{8}$$

$$\frac{8}{15} + \frac{3}{5} = 1\frac{2}{15}$$

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

$$\frac{2}{5} + \frac{9}{10} = 1\frac{3}{10}$$

$$\frac{2}{3} + \frac{7}{12} = 1\frac{3}{12}$$

$$\frac{1}{3} + \frac{5}{6} = 1\frac{1}{6}$$

$$\frac{2}{3} + \frac{5}{6} = 1\frac{3}{6}$$

$$\frac{2}{3} + \frac{5}{6} + \frac{5}{12} = 1\frac{11}{12}$$

$$\frac{5}{8} + \frac{3}{4} = 1\frac{3}{8}$$

$$\frac{4}{5} + \frac{7}{10} = 1\frac{5}{10}$$

$$\frac{3}{4} + \frac{7}{8} + \frac{1}{2} = 2\frac{1}{8}$$

Challenge It 2

Solve each calculation in several different ways.

$$1\frac{\boxed{3}}{9} + \frac{\boxed{5}}{9} = \boxed{1}\frac{\boxed{8}}{\boxed{9}}$$

$$2\frac{\boxed{4}}{7} + \frac{\boxed{2}}{\boxed{7}} = 2\frac{\boxed{6}}{7}$$

Possible
solution

Now solve them together using the digits 1 - 9 once each.



Adding Fractions Game

Play It 2

You need:

Two sets of 1 - 4 cards

To play:

Cards are shuffled and 3 cards are dealt to each player.

Place the numbers on your template to make a proper fraction and a mixed number.

Calculate the total.

The player with the smaller total scores a point.

To win:

The winner is the first player to score 5 points.

$$\boxed{} \frac{\boxed{}}{5} + \frac{\boxed{}}{5}$$



Do It 3

Calculate writing your answer as a mixed number:

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

$$1\frac{1}{9} + \frac{1}{3} = 1\frac{4}{9}$$

$$\frac{1}{2} + 2\frac{3}{10} = 2\frac{8}{10}$$

$$1\frac{3}{8} + \frac{1}{4} = 1\frac{5}{8}$$

$$2\frac{1}{8} + \frac{3}{4} = 2\frac{7}{8}$$

$$\frac{1}{5} + 1\frac{4}{15} = 1\frac{7}{15}$$

$$2\frac{1}{5} + \frac{1}{10} = 2\frac{3}{10}$$

$$3\frac{2}{5} + \frac{3}{10} = 3\frac{7}{10}$$

$$\frac{1}{3} + 1\frac{5}{12} = 1\frac{9}{12}$$

$$1\frac{2}{3} + \frac{1}{6} = 1\frac{5}{6}$$

$$2\frac{2}{3} + \frac{1}{9} = 2\frac{7}{9}$$

$$\frac{3}{4} + 2\frac{1}{12} = 2\frac{10}{12}$$

Challenge It 3

Match the calculation to the answer.
Find the missing buddies.

$1\frac{3}{5} + \frac{7}{10}$	$2\frac{7}{10}$
$1\frac{4}{5} + \frac{9}{10}$	$3\frac{1}{10}$
$2\frac{4}{5} + \frac{3}{10}$	$2\frac{3}{10}$
$1\frac{1}{3} + \frac{5}{6}$	$2\frac{3}{8}$
$\frac{5}{6} + 2\frac{2}{3}$	$3\frac{3}{6}$
$\frac{8}{9} + 2\frac{1}{3}$	$3\frac{2}{9}$
$\frac{7}{9} + 1\frac{2}{3}$	$2\frac{1}{6}$
$\frac{3}{4} + 1\frac{5}{8}$	$2\frac{1}{8}$
$\frac{7}{8} + 1\frac{1}{4}$	$2\frac{4}{9}$



Adding Fractions (2) Game

Play It 3

You need:

Two sets of 1 - 8 cards

To play:

The cards are shuffled and three cards are dealt to each player.

Player 1 turns over their cards and chooses two to place in their template to make a mixed number and a proper fraction.

Then it is Player 2's turn to choose two of their cards to make a mixed number and a proper fraction.

Both players calculate their totals, convincing each other their answer is correct.

Players score a point if the whole number in their total is 3

The player with the greater total scores a bonus point.

If the cards dealt do not allow the player to make a mixed number and a proper fraction the other player scores a point.

To win:

The winner is the first player to score 10 points.

$$2 \frac{\boxed{}}{5} + \frac{\boxed{}}{10}$$