



Colin and Coco's Deliberate Practice

Year 6 Unit 5 **Answers**

Fractions, Decimals and Percentages





Contents

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.

	Do It	Challenge It	Play It
Use common factors to simplify fractions	1		
Use common multiples to find equivalent fractions	1		
Compare proper fractions		1	1
Compare fractions, including fractions > 1		1	1
Order proper fractions	2	2	2
Order fractions, including fractions > 1	2	2	2
Calculate decimal equivalents of fifths, eighths and tenths	3		
Know simple fractions and decimal equivalences for 10%, 20%, 25%, 50%, 75%, 100%	3	3	3
Find equivalencies between simple fractions, decimals and percentages	3	3	



Simplify fully:

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

$$\frac{6}{15} = \boxed{\frac{2}{5}}$$

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

$$\frac{6}{9} = \boxed{\frac{2}{3}}$$

$$\frac{4}{12} = \boxed{\frac{1}{3}}$$

$$\frac{9}{12} = \boxed{\frac{3}{4}}$$

$$\frac{6}{18} = \boxed{\frac{1}{3}}$$

$$\frac{14}{20} = \boxed{\frac{7}{10}}$$

Find pairs of equivalent fractions with the same denominator for:

$$\frac{1}{2} \text{ and } \frac{1}{3} \quad \boxed{\frac{3}{6}} \text{ and } \boxed{\frac{2}{6}}$$

$$\frac{1}{3} \text{ and } \frac{1}{4} \quad \boxed{\frac{4}{12}} \text{ and } \boxed{\frac{3}{12}}$$

$$\frac{1}{5} \text{ and } \frac{1}{6} \quad \boxed{\frac{6}{30}} \text{ and } \boxed{\frac{5}{30}}$$

$$\frac{1}{4} \text{ and } \frac{1}{6} \quad \boxed{\frac{3}{12}} \text{ and } \boxed{\frac{2}{12}}$$

Do It 1

Use the digits 1 to 8 once each to complete the two statements in several different ways

Challenge It 1

Both proper fractions

$$\frac{\boxed{1}}{\boxed{2}} < \frac{\boxed{3}}{\boxed{4}}$$

Possible solution

Both improper fractions

$$\frac{\boxed{6}}{\boxed{5}} > \frac{\boxed{8}}{\boxed{7}}$$



Compare Fractions Game

Play It 1

You need:
1 - 6 Dice

To play:
Take it in turns to roll the dice.
Place the number on your template or opponent's template as a numerator or denominator.

To win:
The winner is the first player to complete two fractions to make a true statement.

Player 1

$$\frac{\boxed{}}{\boxed{}} > \frac{\boxed{}}{\boxed{}}$$

Player 2

$$\frac{\boxed{}}{\boxed{}} > \frac{\boxed{}}{\boxed{}}$$



Do It 2

Place the fractions in order from smallest to largest:

$$\frac{1}{5}, \frac{3}{6}, \frac{3}{5}, \frac{1}{8}$$

$$\frac{1}{8}, \frac{1}{5}, \frac{3}{6}, \frac{3}{5}$$

$$\frac{1}{2}, \frac{3}{4}, \frac{3}{8}, \frac{4}{3}$$

$$\frac{3}{8}, \frac{1}{2}, \frac{3}{4}, \frac{4}{3}$$

$$\frac{2}{7}, \frac{5}{8}, \frac{2}{5}, \frac{2}{8}$$

$$\frac{2}{8}, \frac{2}{7}, \frac{2}{5}, \frac{5}{8}$$

$$\frac{8}{7}, \frac{5}{8}, \frac{8}{5}, \frac{7}{8}$$

$$\frac{5}{8}, \frac{7}{8}, \frac{8}{7}, \frac{8}{5}$$

$$\frac{5}{9}, \frac{7}{7}, \frac{5}{7}, \frac{8}{9}$$

$$\frac{5}{9}, \frac{5}{7}, \frac{8}{9}, \frac{7}{7}$$

$$\frac{5}{9}, \frac{3}{7}, \frac{7}{3}, \frac{9}{5}$$

$$\frac{3}{7}, \frac{5}{9}, \frac{9}{5}, \frac{7}{3}$$

$$\frac{5}{7}, \frac{1}{3}, \frac{1}{4}, \frac{5}{6}$$

$$\frac{1}{4}, \frac{1}{3}, \frac{5}{7}, \frac{5}{6}$$

$$\frac{14}{6}, \frac{13}{8}, \frac{14}{7}, \frac{13}{9}$$

$$\frac{13}{9}, \frac{13}{8}, \frac{14}{7}, \frac{14}{6}$$

Challenge It 2

Order the fractions from largest to smallest.
Match the fractions with the correct place. Fill in the missing fraction.

$\frac{1}{3}$		1 st
$\frac{4}{5}$		2 nd
$\frac{7}{4}$		3 rd
$\frac{8}{7}$		4 th
$\frac{1}{8}$		5 th
$\frac{8}{3}$		6 th
$\frac{4}{7}$		7 th
$\frac{7}{8}$		8 th
$\frac{1}{2}$		9 th

Largest

Smallest



Order Fractions Game

Play It 2

You need:

1 - 6 Dice

To play:

Roll the dice twice to get a numerator and a denominator and create a proper or improper fraction.

Place the fraction in a cell of the grid.

If it is not possible to place the fraction, the player misses their go.

A player scores one point for each fraction placed on the grid.

To win:

The winner is the player with the most points when either the grid is full or no more fractions can be placed.

Smallest



Largest

Largest



Write as decimals:

$\frac{1}{10} = \boxed{0.1}$

$\frac{1}{5} = \boxed{0.2}$

$25\% = \boxed{0.25}$

$7\% = \boxed{0.07}$

$\frac{3}{10} = \boxed{0.3}$

$\frac{3}{5} = \boxed{0.6}$

$50\% = \boxed{0.5}$

$17\% = \boxed{0.17}$

$\frac{9}{10} = \boxed{0.9}$

$\frac{1}{8} = \boxed{0.125}$

$75\% = \boxed{0.75}$

$70\% = \boxed{0.7}$

$\frac{7}{10} = \boxed{0.7}$

$\frac{5}{8} = \boxed{0.675}$

$20\% = \boxed{0.2}$

$71\% = \boxed{0.71}$

Match the percentage to the fraction.
Find the missing buddies.

Challenge It 3

10%	$\frac{3}{10}$
5%	$\frac{1}{2}$
25%	$\frac{3}{4}$
3%	$\frac{1}{5}$
50%	$\frac{17}{50}$
75%	$\frac{1}{10}$
30%	$\frac{1}{20}$
20%	$\frac{3}{100}$
34%	$\frac{1}{4}$



Fraction, Decimal and Percentage Match

Play It 3

You need:

Fraction, decimal and percentage cards (at the bottom of this page.)

To play:

The cards are mixed up and placed face down.

Player 1 turns over one card and states aloud the equivalent cards they want to try to find.

Player 1 turns over another card.

If the cards are equivalent, player 1 keeps the pair.

If the cards are not equivalent, the cards are turned face down, back where they came from.

Then it is Player 2's turn to turn over two cards to try and find a matching pair.

To win:

The winner is the player with the largest number of matching pairs.

10%

20%

25%

50%

0.75

100%

0.1

$\frac{1}{5}$

0.25

0.5

$\frac{3}{4}$

1

0.3

$\frac{7}{10}$

0.01

$\frac{3}{5}$

$\frac{3}{100}$

$\frac{1}{20}$

$\frac{3}{10}$

70%

1%

60%

3%

0.05

You could use selected cards rather than all of them.