



Colin and Coco's Daily Maths Workout



Workout 6.12

Answers

Keep-uppI (Term 3)



KPIs for Term 3

Add and subtract fractions with denominators that are not multiples of each other
Add and subtract mixed numbers
Multiply simple pairs of proper fractions
Divide proper fractions by a whole number



Adding and Subtracting Fractions Workout

Workout A

Calculate giving your answer as mixed number where appropriate

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

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

$$\frac{1}{3} - \frac{1}{5} = \boxed{\frac{2}{15}}$$

$$\frac{2}{3} - \frac{1}{4} = \boxed{\frac{5}{12}}$$

$$\frac{1}{3} + \frac{1}{4} = \boxed{\frac{7}{12}}$$

$$\frac{2}{5} + \frac{3}{4} = \boxed{1\frac{3}{20}}$$

$$\frac{1}{2} - \frac{1}{5} = \boxed{\frac{3}{10}}$$

$$\frac{3}{4} - \frac{1}{5} = \boxed{\frac{11}{20}}$$

$$\frac{1}{4} + \frac{2}{5} = \boxed{\frac{13}{20}}$$

$$\frac{5}{6} + \frac{1}{4} = \boxed{1\frac{1}{12}}$$

$$\frac{1}{4} - \frac{1}{6} = \boxed{\frac{1}{12}}$$

$$\frac{3}{4} - \frac{2}{3} = \boxed{\frac{1}{12}}$$

$$\frac{1}{2} + \frac{1}{4} + \frac{1}{5} = \boxed{\frac{19}{20}}$$

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

$$\frac{1}{3} - \frac{1}{5} - \frac{1}{10} = \boxed{\frac{1}{30}}$$

$$\frac{1}{2} - \frac{1}{3} + \frac{1}{5} = \boxed{\frac{11}{30}}$$

Adding and Subtracting Mixed Numbers Workout

Workout B

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

$$1\frac{1}{5} + 1\frac{1}{2} = \boxed{2\frac{7}{10}}$$

$$2\frac{4}{5} - 1\frac{2}{5} = \boxed{1\frac{2}{5}}$$

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

$$1\frac{4}{7} + 1\frac{5}{7} = \boxed{3\frac{2}{7}}$$

$$1\frac{1}{3} + 1\frac{1}{4} = \boxed{2\frac{7}{12}}$$

$$1\frac{6}{7} - 1\frac{2}{7} = \boxed{\frac{4}{7}}$$

$$2\frac{1}{4} - 1\frac{1}{5} = \boxed{1\frac{1}{20}}$$

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

$$1\frac{2}{5} + 2\frac{1}{4} = \boxed{3\frac{13}{20}}$$

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

$$3\frac{2}{3} - 1\frac{1}{4} = \boxed{2\frac{5}{12}}$$

$$\boxed{3\frac{1}{9}} = 1\frac{2}{3} + 1\frac{4}{9}$$

$$\boxed{3\frac{5}{12}} = 1\frac{2}{3} + 1\frac{3}{4}$$

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

$$\boxed{2\frac{14}{15}} = 4\frac{1}{3} - 1\frac{2}{5}$$

$$2\frac{3}{4} + 2\frac{5}{8} = \boxed{5\frac{3}{8}}$$

$$2\frac{4}{5} + 1\frac{1}{3} = \boxed{4\frac{2}{15}}$$

$$4\frac{3}{5} - 3\frac{7}{10} = \boxed{\frac{9}{10}}$$

$$4\frac{3}{8} - 1\frac{2}{5} = \boxed{2\frac{39}{40}}$$

Multiplying and Divide Fractions Workout

Workout C

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

$$\frac{2}{3} \times \frac{2}{5} = \boxed{\frac{4}{15}}$$

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

$$\frac{6}{7} \div 2 = \boxed{\frac{3}{7}}$$

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

$$\frac{2}{5} \times \frac{3}{4} = \boxed{\frac{6}{20}}$$

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

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

$$\frac{2}{3} \times \frac{1}{5} = \boxed{\frac{2}{15}}$$

$$\frac{3}{4} \times \frac{2}{3} = \boxed{\frac{6}{12}}$$

$$\frac{3}{7} \div 3 = \boxed{\frac{1}{7}}$$

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

$$\boxed{\frac{3}{8}} = \frac{3}{4} \times \frac{1}{2}$$

$$\boxed{\frac{20}{30}} = \frac{4}{5} \times \frac{5}{6}$$

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

$$\boxed{\frac{3}{16}} = \frac{3}{4} \div 4$$



Adding and Subtracting Fractions/Mixed Numbers Game

Workout D

You need: (print off the cards)

Game Template A or B

Card Set A for each player.

Card Set B or C for each player.

To play:

Each card set is shuffled and placed face down.

Each player picks TWO cards from Set B (or C) and places them on their Game Template as the denominators.

Each player picks one digit card from their Set A and places it on their Game Template either as a numerator or, in the case of Game B, a whole number.

Each player picks another digit card from their Set A and places it on their Game Template.

Once cards have been placed they can not be moved.

Both players keep picking cards to create fractions or mixed numbers.

To win:

The player who creates the largest total scores one point.

Using the same cards, the players try and create the smallest total. A second point is scored for the smallest total.

The first player to get 10 points wins the Game.

Game Template A

$$\frac{\boxed{A}}{\boxed{B}} + \frac{\boxed{A}}{\boxed{B}} =$$

Note
The Game Templates
can be adapted by
changing the '+' to a
'-' to practise
subtracting fractions
and/or mixed
numbers.

Game Template B

$$\boxed{A} \frac{\boxed{A}}{\boxed{B}} + \boxed{A} \frac{\boxed{A}}{\boxed{B}} =$$



Adding and Subtracting Fractions/Mixed Numbers Game

Set A

2

3

4

5

6

7

8

9

Set B

2

3

4

5

6

7

8

9



Adding and Subtracting Mixed Numbers Workout

Workout E

Put different digits in the empty boxes so that the fraction statements are correct.

Possible
Solution

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

$$\frac{2 \boxed{5}}{\boxed{3} 0} = \boxed{2} \frac{\boxed{5}}{1 \boxed{0}} - 1 \frac{\boxed{4}}{\boxed{6}}$$

Are there any boxes that it is impossible to put a digit in? Why?

Are there any boxes that could have any of the digits in them?

Now complete both calculations together using the digits 0, 1, 2, 3, 4, 5, 6 and 7 at least once each.



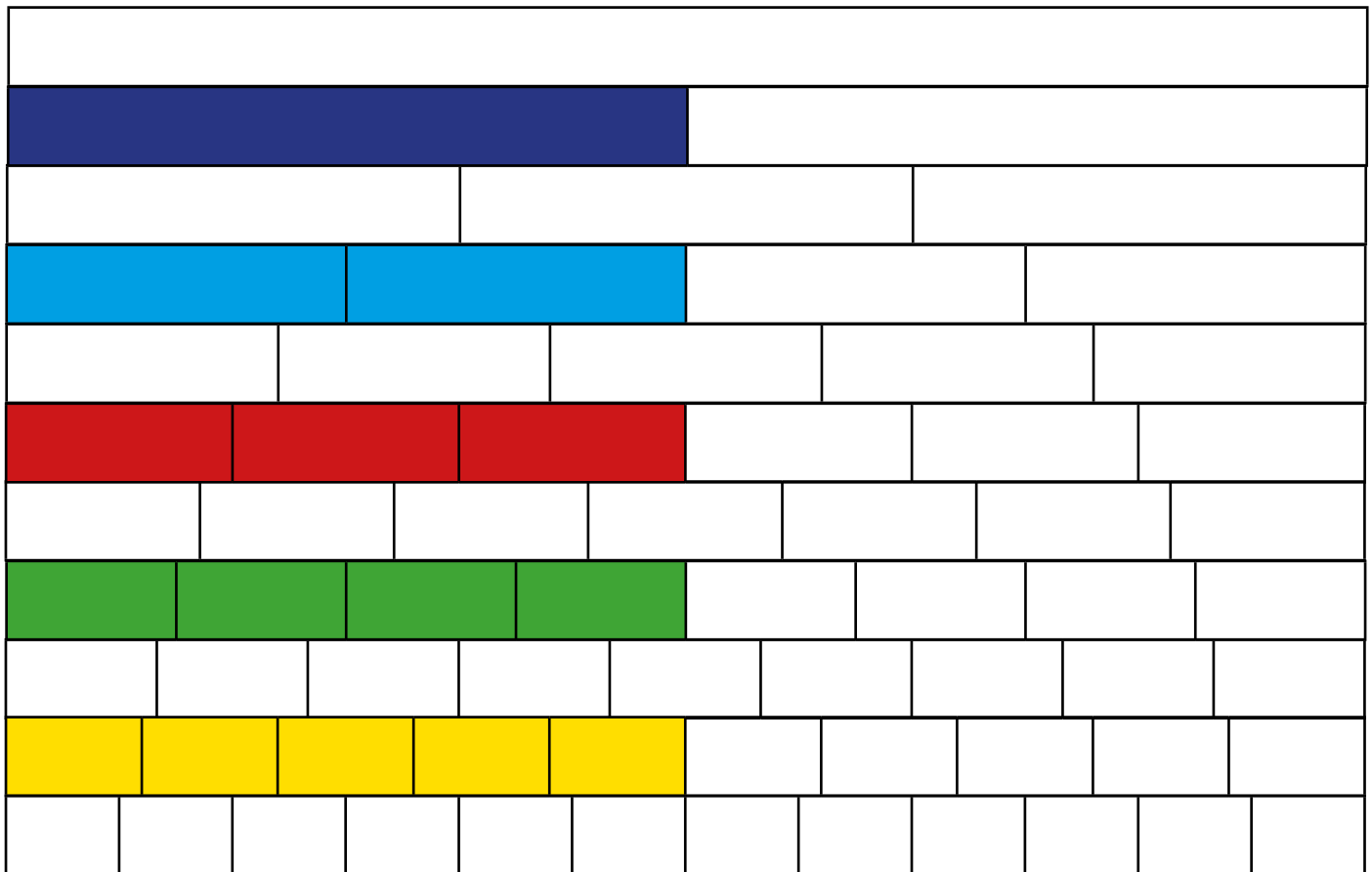
Multiplying and Dividing Fractions Investigation

Workout F

Using the Fraction Wall, investigate multiplication and division facts involving proper fractions.

For example:

- Shade $\frac{1}{2}$
- Shade all the other equivalent fractions



Describe the shaded equivalent fractions using 'x' and '÷' such as:

One half of one half is one quarter

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

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

One quarter of one half is one eighth

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

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

Complete these statements for the other equivalent fractions.
Investigate for other unit and non-unit fractions.



Word Problem Workout

Workout G

1. $\frac{1}{3}$ of children in class five were wearing brown shoes. $\frac{2}{5}$ were wearing black shoes. Everyone else was wearing trainers.
What fraction wore trainers?

$\frac{4}{15}$

2. Coco exercises for an hour each morning.
She jogs for $\frac{1}{3}$ of an hour, walks for $\frac{1}{4}$ of an hour.
What fraction of the hour has she left for flying?

$\frac{5}{12}$

3. Simon is $7\frac{3}{4}$ years old. His brother is $3\frac{5}{6}$ years younger.
How old is his brother?

$3\frac{11}{12}$

4. Fred's Bakery uses $3\frac{3}{4}$ sacks of plain flour, $4\frac{3}{5}$ sacks of self-raising flour every day. How much flour is that in total?

$8\frac{7}{20}$

5. Colin shares $\frac{3}{4}$ of his lasagne between 4 of his friends.
What fraction of the lasagne does each person get?

$\frac{3}{16}$

6. $\frac{2}{3}$ of a football team are right footed players. $\frac{1}{4}$ of right footed players wear bobble hats when they train.
What fraction of the team are right footed bobble hat wearers?

$\frac{2}{12}$

7. $\frac{3}{5}$ of the seats in a train carriage are reserved. $\frac{1}{3}$ of these are reserved for people going shopping.
What fraction of the seats are reserved for shoppers?

$\frac{3}{15}$

Create your own word problems involving fractions.



Matching Workout

Workout H

Match the fraction or mixed number in column A with an operation in column B to make an answer in column C

A		B		C
$\frac{4}{5}$		$-1\frac{4}{9}$		$\frac{5}{12}$
$3\frac{3}{4}$		$+2\frac{2}{5}$		$2\frac{3}{8}$
$1\frac{7}{10}$		$+\frac{2}{3}$		$1\frac{7}{15}$
$1\frac{2}{5}$		$+1\frac{4}{12}$		$3\frac{4}{5}$
$1\frac{1}{4}$		$-1\frac{3}{8}$		$4\frac{3}{10}$
$2\frac{2}{9}$		$+2\frac{3}{5}$		$\frac{7}{9}$
$2\frac{1}{12}$		$-1\frac{2}{3}$		$2\frac{7}{12}$

Match the calculation
with the answer
Fill in the missing buddies

$\frac{2}{3} \div 2$		$\frac{1}{8}$
$\frac{1}{2} \div 3$		$\frac{1}{9}$
$\frac{4}{5} \div 2$		$\frac{1}{3}$
$\frac{1}{2} \div 4$		$\frac{3}{8}$
$\frac{3}{4} \div 2$		$\frac{1}{6}$
$\frac{1}{3} \div 3$		$\frac{1}{2}$
$\frac{3}{6} \div 3$		$\frac{2}{5}$

Match the calculation
with the answer
Fill in the missing buddies

$\frac{2}{3} \times \frac{1}{3}$		$\frac{1}{10}$
$\frac{1}{4} \times \frac{3}{4}$		$\frac{1}{4}$
$\frac{4}{5} \times \frac{1}{2}$		$\frac{2}{9}$
$\frac{1}{2} \times \frac{1}{5}$		$\frac{3}{12}$
$\frac{3}{4} \times \frac{1}{3}$		$\frac{3}{16}$
$\frac{1}{3} \times \frac{3}{4}$		$\frac{1}{6}$
$\frac{5}{6} \times \frac{1}{5}$		$\frac{4}{10}$

Create your own Matching Workouts.