## Colin and Coco's Daily Maths Workout

Workout 6.1
Answers

## Fraction Addition and Subtraction



You may need to work these out on another piece of paper.


## Fraction Workout

You may need to work these out on another piece of paper.


Fraction Workout
You may need to work these out on another piece of paper.

| $3 \frac{3}{5}+2 \frac{1}{4}=5 \frac{17}{20}$ | $2 \frac{2}{5}+1 \frac{3}{4}=4 \frac{3}{20}$ | $3 \frac{2}{3}+2 \frac{3}{4}=6 \frac{5}{12}$ |
| :--- | :--- | :--- |
| $2 \frac{2}{3}+1 \frac{1}{5}=4 \frac{13}{15}$ | $2 \frac{2}{3}+2 \frac{4}{5}=5 \frac{7}{15}$ | $3 \frac{2}{3}+2 \frac{2}{7}=5 \frac{20}{21}$ |
| $3 \frac{4}{6}-1 \frac{1}{6}=2 \frac{3}{6}$ | $2 \frac{5}{6}-1 \frac{1}{3}=1 \frac{3}{6}$ | $2 \frac{5}{8}-1 \frac{3}{4}=4 \frac{7}{8}$ |
| $2 \frac{3}{5}-1 \frac{4}{5}=4 \frac{4}{5}$ | $3 \frac{1}{3}-1 \frac{2}{3}=1 \frac{2}{3}$ | $3 \frac{2}{5}-1 \frac{3}{4}=1 \frac{13}{20}$ |

You need:
1-10 cards (At the back of the pack)

## To play:

Shuffle the cards.
Deal four cards to each player.
Each player makes two proper fractions then adds them to find a total.
The player with the largest total scores a point.

To win:
The winner is the first player to score five points.

Play again, but make improper fractions this time.

Solve each calculation in at least four different ways.
(The missing numbers could have 2 digits)

## Possible

## Solution

$$
\begin{aligned}
& 2 \frac{1}{2}+2 \frac{1}{4}=4 \frac{3}{4} \\
& 2 \frac{1}{3}+2 \frac{1}{9}=4 \frac{4}{9}
\end{aligned}
$$

Find the missing digits.
Solve each calculation in several ways if possible.

$$
\begin{gathered}
3 \frac{1}{6}-1 \frac{2}{3}=1 \frac{1}{2} \quad 3 \frac{4}{5}-1 \frac{9}{10}=1 \frac{9}{1[0} \\
2 \frac{3}{6}+\frac{7}{8}=3 \frac{3}{8}
\end{gathered}
$$

Solve all calculations together using the digits $0,1,2,3,4,5,6,7,8$, and 9 once each.

## Book Shelf Challenge

Colin is sorting his books out and is filling shelves in a very organised way. The table shows the type of books and the fraction of shelves that are filled.

| $\quad$ Books | Fraction of shelves filled |
| :--- | :---: |
| Stories about explorers | $1 \frac{2}{3}$ |
| Astronomy books | $1 \frac{3}{4}$ |
| Recipe books | $1 \frac{4}{5}$ |
| Keep Fit books | $1 \frac{5}{6}$ |

What is the difference between the fractions of shelves filled by different types of books?

What do you notice?

Investigate further:
Possible Solutions

|  |  | Difference |
| :---: | :---: | :---: |
| Stories | Astronomy | $\frac{1}{12}$ |
| Stories | Recipe | $\frac{2}{15}$ |
| Stories | Keep Fit | $\frac{1}{6}$ |
| Astronomy | Recipe | $\frac{1}{20}$ |
| Astronomy | Keep Fit | $\frac{1}{12}$ |
| Recipe | Keep Fit | $\frac{1}{30}$ |

Find two mixed numbers with different denominators that have a difference of $\frac{1}{10}$
$3 \frac{1}{2} \quad 3 \frac{4}{10}$
$\frac{1}{9} \quad 5 \frac{2}{3} \quad 5 \frac{5}{9}$
$\frac{1}{8} \quad 7 \frac{7}{8} \quad 7 \frac{3}{4}$

Colin is having a party.
He has $\frac{3}{5} \mathrm{~kg}$ of Caribou nuts in one bag and $\frac{3}{4} \mathrm{~kg}$ of Caribou nuts in another bag.
What weight of Caribou nuts does he have in total? $1 \frac{7}{20}$

Colin has taken up jogging.
He jogs $3 \frac{3}{4} \mathrm{~km}$ on Saturday and $2 \frac{2}{3} \mathrm{~km}$ on Sunday.
How far did he jog in total? $6 \frac{3}{12}$
How much further did he jog on Saturday than Sunday? $1 \frac{1}{12}$

Colin weighs $165 \frac{2}{3} \mathrm{~kg}$.
Coco weighs $\frac{5}{8} \mathrm{~kg}$.
What is the difference between their weights? $165 \frac{1}{24}$

Colin has a long journey to make.
He travels $\frac{3}{8}$ of the journey, has a break then travels $\frac{1}{3}$ of the journey.
What fraction of the journey does he have left to travel?

Coco is making a fruit punch. She pours in $1 \frac{2}{3}$ litres of Tropical juice, $\frac{4}{5}$ litres of Lemonade. How much fruit punch has Coco made so far? $2 \frac{7}{15}$ How much more Tropical Juice than lemonade does she use? $\frac{13}{15}$

Create your own problem for $2 \frac{1}{4}$ subtract $1 \frac{1}{3}$

Using the digits from today's date create all the numbers from 1-20. You can use any or all of the four operations. You must use all the digits every time.
Example: 27/3/20 (27th March)
1 ..... 11
2 12
$7 \times 2=14 \quad 3-2-0=1$
$14-1=13$13$47+2-3-2-0=4$14
5 ..... 15
$67+3-2-2-0=6$ ..... 16
7 ..... 17
8 ..... 18
$97 \times 2-3-2-0=9$ ..... 19
10 ..... 20

