## Chilli Challenge

## Calculate

Add and subtract fractions with denominators which are multiples, using the concept of equivalent fractions

$$
\begin{aligned}
& \frac{1}{3}+\frac{5}{12}=\frac{\square}{12}+\frac{5}{12}=\frac{\square}{12} \\
& \frac{4}{5}-\frac{3}{10}=\frac{\square}{10}-\frac{3}{10}=\frac{\square}{10}
\end{aligned}
$$

## Compare and Order

Multiply simple pairs of proper fractions, writing the answer in its simplest form

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

Divide simple proper fractions by whole numbers

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

## Use common factors to simplify fractions



## Equivalence

Use common multiples to express simple
fractions in the same denomination
Express $\frac{1}{2}$ and $\frac{1}{4}$ in fractions with the same denominator.

4 is a multiple of 2 and 4


Fractions
Nice and Spicy!

## Calculate

Identify the value of each digit in numbers given to two decimal places and multiply and divide numbers by 10 and 100 giving answers up to two decimal places

$$
23 \div 100=0.23
$$

## Calculate

Multiply one-digit numbers with up to one decimal place by whole numbers
$0.6 \times 7=\square$

## Calculate

Use written division methods in cases where the answer has up to two decimal places

$$
2 \longdiv { 3 9 . 0 }
$$

Solve problems which require answers to be rounded to specific degrees of accuracy

Round $£ 2.85$ to the nearest 10 p

## Calculate

Add and subtract fractions with denominators which are multiples, using the concept of equivalent fractions

$$
\begin{aligned}
& \frac{1}{3}+\frac{5}{12}=\frac{4}{12}+\frac{5}{12}=\frac{9}{12} \\
& \frac{4}{5}-\frac{3}{10}=\frac{8}{10}-\frac{3}{10}=\frac{5}{10}
\end{aligned}
$$



## Calculate

Multiply simple pairs of proper fractions, writing the answer in its simplest form

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

Divide simple proper fractions by whole numbers

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



Use common multiples to express simple fractions in the same denomination

Express $\frac{1}{2}$ and $\frac{1}{4}$ in fractions with the same denominator.

4 is a multiple of 2 and 4

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

## Answers

Nice and Spicy!

## Calculate

Identify the value of each digit in numbers given to two decimal places and multiply and divide numbers by 10 and 100 giving answers up to two decimal places

$$
23 \div 100=0.23
$$

Which is greater? 0.61 or $\frac{1}{2}$ of a litre?
$\frac{1}{2}$ of a litre $=0.5 \mathrm{l}$, so 0.6 l is greater

## Calculate

Multiply one-digit numbers with up to one decimal place by whole numbers

$$
0.6 \times 7=4.2
$$

Use written division methods in cases where the answer has up to two decimal places


Solve problems which require answers to be rounded to specific degrees of accuracy

Round $£ 2.85$ to the nearest 10 p

Rounds to £2.90

## Calculate

Add and subtract fractions with denominators and mixed numbers, using the concept of equivalent fractions

$$
\begin{aligned}
& \frac{1}{3}+\frac{3}{8}=\frac{\square}{24}+\frac{\square}{24}=\frac{\square}{24} \\
& \frac{4}{5}-\frac{3}{4}=\frac{\square}{20}-\frac{\square}{20}=\frac{\square}{20}
\end{aligned}
$$

## Compare and Order

Compare and order fractions, including fractions > 1

Multiply simple pairs of proper fractions, writing the answer in its simplest form

$$
\frac{1}{3} \times \frac{1}{4}=\square
$$

Divide simple proper fractions by whole numbers

$$
\frac{2}{3} \div 5=\square
$$

## $\frac{11}{8} \square \frac{5}{4}$

Use common multiples to express simple fractions in the same denomination

Express $\frac{2}{5}$ and $\frac{3}{4}$ in fractions with the same denominator.

20 is a multiple of 5 and 4


## Equivalence

Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Which is greater? 0.751 or $\frac{4}{5}$ of a litre?

## Fractions

It's getting hot!

## Calculate

Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

$$
23 \div 1000=0.023
$$

0.023 has $\square$ hundreths and $\square$ thousandths

## Calculate

Multiply one-digit numbers with up to two decimal places by whole numbers

## Calculate

Use written division methods in cases where the answer has up to two decimal places

$$
4 \longdiv { 2 } 3 3 \quad 7 \quad . \quad 0 \quad 0
$$

Calculate
Add and subtract fractions with denominators and mixed numbers, using the concept of equivalent fractions

$$
\begin{aligned}
& \frac{1}{3}+\frac{3}{8}=\frac{8}{24}+\frac{9}{24}=\frac{17}{24} \\
& \frac{4}{5}-\frac{3}{4}=\frac{16}{20}-\frac{15}{20}=\frac{1}{20}
\end{aligned}
$$

## Calculate

Multiply simple pairs of proper fractions, writing the answer in its simplest form

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

Divide simple proper fractions by whole numbers

$$
\frac{2}{3} \div 5=\frac{2}{15}
$$

Equivalence
Use common factors to simplify fractions

$$
\frac{15}{24}=\frac{5}{8}
$$

Equivalence
Use common multiples to express simple fractions in the same denomination

Express $\frac{2}{5}$ and $\frac{3}{4}$ in fractions with the same denominator. 20 is a multiple of 5 and 4

$$
\frac{2}{5}=\frac{8}{20} \text { and } \frac{3}{4}=\frac{15}{20}
$$

## Fractions

## Answers

It's getting hot!

## Calculate

Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

$$
23 \div 1000=0.023
$$

0.023 has 2 hundredths and 3 thousandths

## Calculate

Multiply one-digit numbers with up to two decimal places by whole numbers

## $0.06 \times 7=\mathbf{0 . 4 2}$

Use written division methods in cases where the answer has up to two decimal places

Solve Problems

Solve problems which require answers to be rounded to specific degrees of accuracy

Round half of $£ 2.99$ to the nearest 1 p
Half of $£ 2.99=£ 1.495=149.5 p$,
so rounds to 150 p $=£ 1.50$

## Calculate

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

Calculate Mentally:


## Calculate

Divide proper fractions by whole numbers

$$
\frac{4}{5} \div 8=\frac{\square}{\overline{40}}=\frac{\square}{10}
$$

Explain using this diagram:

|  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Multiply simple pairs of proper fractions, writing the answer in its simplest form

$$
\frac{2}{3} \times \frac{3}{4}=\frac{\square}{12}=\frac{\square}{2}
$$

Explain using this diagram:


Solve problems which require answers to be rounded to specific degrees of accuracy

Round $\frac{3}{4}$ of $£ 45.33$ to the nearest 1 p

## Equivalence

## Use common factors to simplify fractions




Equivalence
Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts

Which is greater? 0.7 l or $\frac{2}{3}$ of a litre?

## Equivalence

Use common multiples to express fractions in the same denomination

Express $\frac{3}{10}$ and $\frac{5}{12}$ in fractions with the same denominator.


## Calculate

Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

$$
1863 \div 1000=1.863
$$

1.863 has $\square$ one, $\square$ tenths, $\square$ hundredths and $\square$ thousandths

## Calculate

Multiply one-digit numbers with up to two decimal places by whole numbers

$$
0.06 \times 17=\square
$$

## Calculate

Use written division methods in cases where the answer has up to two decimal places

$$
\begin{array}{l|llllll}
8 & 6 & 4 & 2 & . & 0 & 0
\end{array}
$$

## Answers

Burning up!


## Compare and Order

Compare and order fractions, including fractions > 1
Order the following fractions:

$$
\frac{8}{5} \quad 1 \frac{5}{8} \quad \frac{17}{20} \quad 1 \frac{7}{12}
$$

## Calculate

Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions

Calculate Mentally:

$$
\begin{aligned}
& \frac{1}{3}+\frac{3}{8}=\frac{17}{24} \\
& \frac{4}{5}-\frac{3}{4}=\frac{1}{20}
\end{aligned}
$$

## Calculate

Multiply simple pairs of proper fractions, writing the answer in its simplest form

$$
\frac{2}{3} \times \frac{3}{4}=\frac{6}{12}=\frac{1}{2}
$$

Explain using this diagram:


Multiply $=$ "of" so $\frac{2}{3} \times \frac{3}{4}$ can also be worded $\frac{3}{4}$ of $\frac{2}{3}$ The diagram shows $\frac{2}{3}$ shaded and undeneath shows $\frac{3}{4}$ of that $\frac{2}{3}$ shaded which is equal to $\frac{1}{2}$ of the original bar.


Use common multiples to express fractions in the same denomination

Express $\frac{3}{10}$ and $\frac{5}{12}$ in fractions with the same denominator.

$$
\frac{3}{10}=\frac{8}{\mathbf{6 0}} \text { and } \frac{5}{12}=\frac{\mathbf{2 5}}{\mathbf{6 0}}
$$

## Fractions

## Answers

Burning up!

## Calculate

Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places

$$
1863 \div 1000=1.863
$$

1.863 has $\mathbf{1}$ one, $\mathbf{8}$ tenths, $\mathbf{6}$ hundredths and 3 thousandths

## Calculate

Multiply one-digit numbers with up to two decimal places by whole numbers

## $0.06 \times 17=1.02$

## Answers

Burning up!


## Compare and Order

Compare and order fractions, including fractions > 1
Order the following fractions:

$$
\begin{array}{llll}
\frac{17}{20} & \frac{8}{5} & 1 \frac{7}{12} & 1 \frac{5}{8}
\end{array}
$$

Use written division methods in cases where the answer has up to two decimal places


