

Fractions, decimals and percentages

Adding and subtracting fractions

Comparing percentages

1 For each pair of calculations, state which gives the larger value.

1a 20% of 60 30% of 60

1b 15% of 90 15% of 80

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1c 10% of 36 30% of 11

1d 26% of 20 18% of 36

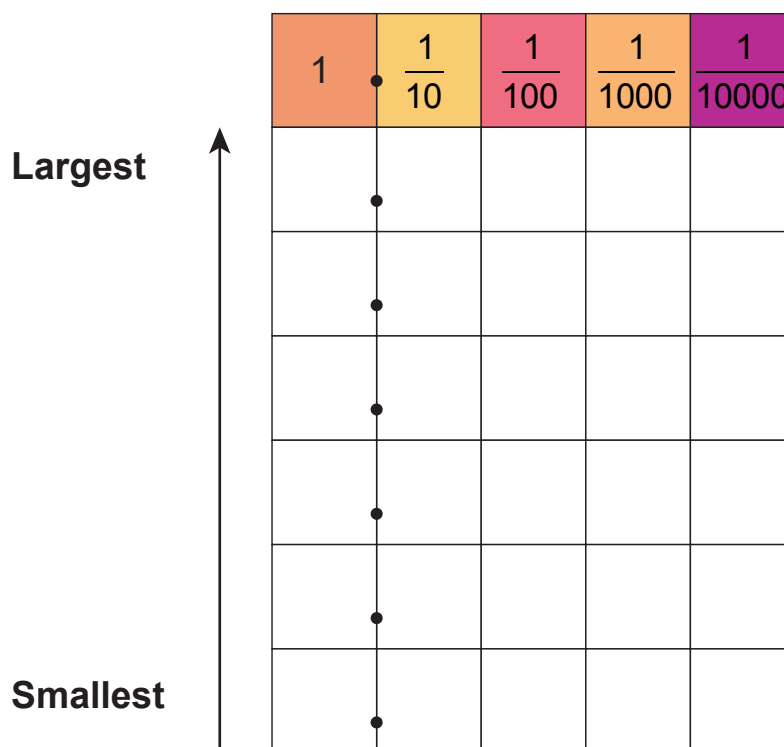
Fractions, decimals and percentages

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Comparing decimals

2 Write these numbers in order, largest first:

0.7, 0.2991, 1.05, 1.508, 0.58, 2.4



3 You are given the digits

3, 4, 0, 7 and a decimal point.

Using each number only once and the decimal point what is

3a the largest number you can make?

Largest:

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

Fractions, decimals and percentages

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3b the smallest number you can make?

Smallest:

| | | | |
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| | | | |
|--|--|--|--|

Comparing fractions

4 Write out each of these pairs of fractions, inserting either $<$, $>$ or $=$ between each fraction to make each statement correct.

4a $\frac{4}{7}$ $\frac{4}{9}$

4b $\frac{3}{12}$ $\frac{1}{4}$

4c $\frac{1}{8}$ $\frac{1}{7}$

4d $\frac{3}{15}$ $\frac{5}{9}$

4e $\frac{3}{12}$ $\frac{4}{16}$

4f $\frac{2}{6}$ $\frac{2}{7}$

4g $\frac{5}{8}$ $\frac{5}{9}$

4h $\frac{6}{7}$ $\frac{5}{6}$

4i $\frac{1}{2}$ $\frac{14}{29}$

Addition and subtraction of decimals

5 Perform these calculations. You may wish to use the grid.

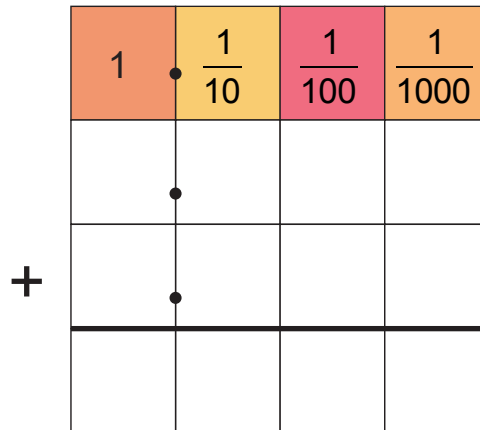
5a $0.3 + 0.6 =$

| | | | | |
|----------|---|----------------|-----------------|------------------|
| + | 1 | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
| | | | | |
| | | | | |
| | | | | |

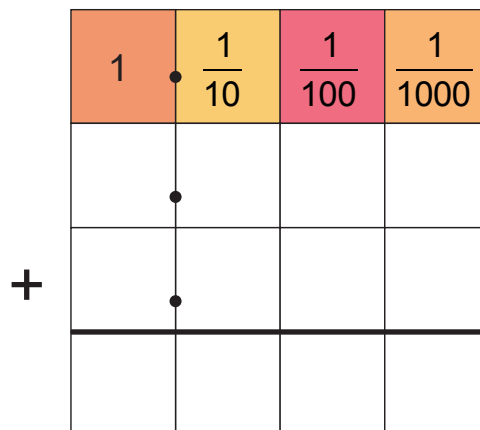
Fractions, decimals and percentages

Adding and subtracting fractions

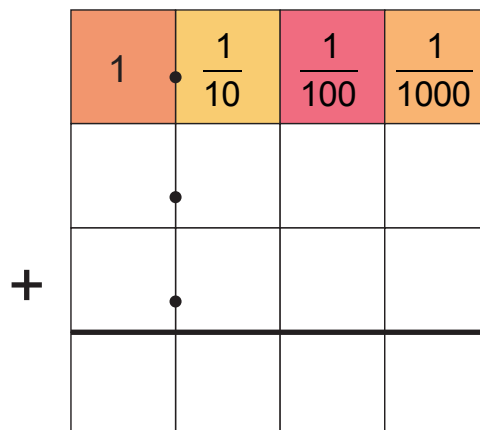
5b $0.8 + 0.1 =$



5c $0.42 + 0.11 =$



5d $1.2 + 3.7 =$



Fractions, decimals and percentages

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5e $1.46 + 3.42 = \square$

| 1 | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|----------------|-----------------|------------------|
| | | | |
| | | | |
| | | | |

5f $5.7 + 2.4 = \square$

| 1 | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|----------------|-----------------|------------------|
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| | | | |
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6 Perform these calculations.

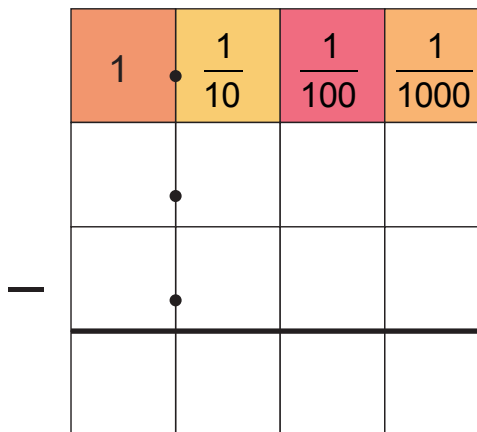
6a $0.7 - 0.2 = \square$

| 1 | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|----------------|-----------------|------------------|
| | | | |
| | | | |
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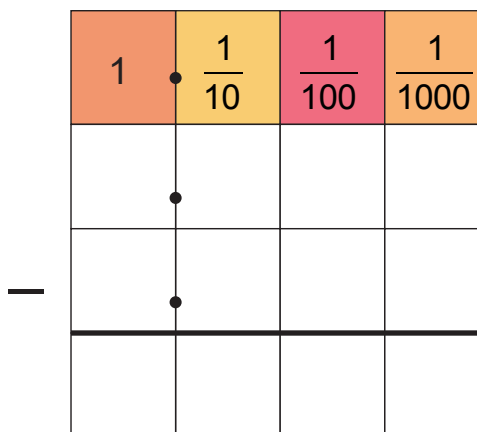
Fractions, decimals and percentages

Adding and subtracting fractions

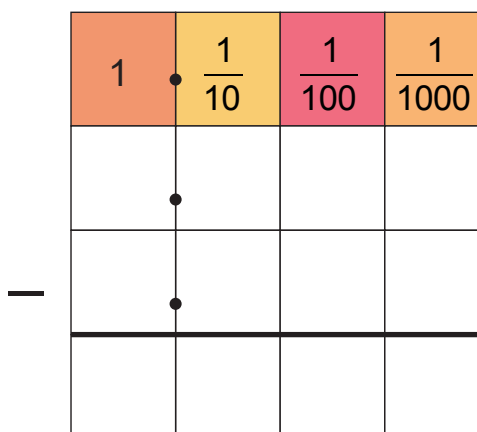
6b $0.9 - 0.6 =$



6c $1.3 - 0.1 =$



6d $4.2 - 3.1 =$



Fractions, decimals and percentages

Adding and subtracting fractions

6e $6.9 - 3.5 =$

| 1 | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|----------------|-----------------|------------------|
| | | | |
| | | | |
| | | | |

6f $8.9 - 7.3 =$

| 1 | $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{1000}$ |
|---|----------------|-----------------|------------------|
| | | | |
| | | | |
| | | | |

Addition and subtraction with fractions

7 Calculate:

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

7c $\frac{3}{10} + \frac{1}{10} =$

7b $\frac{3}{8} + \frac{5}{8} =$

Fractions, decimals and percentages

Adding and subtracting fractions

8 Calculate

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

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

8c $\frac{1}{7} + \frac{1}{3} =$

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

8e $\frac{1}{7} + \frac{3}{8} =$

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8f $\frac{1}{6} + \frac{2}{3} =$

8g $\frac{3}{4} + \frac{2}{3} =$

8h $\frac{3}{5} + \frac{2}{3} =$

8i $\frac{4}{7} + \frac{2}{5} =$

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8j $\frac{4}{7} - \frac{1}{2} =$

8k $\frac{6}{11} - \frac{1}{4} =$

8l $\frac{2}{3} - \frac{1}{6} =$

8m $\frac{3}{4} - \frac{2}{3} =$

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8n $\frac{5}{8} - \frac{5}{12} =$

8o $\frac{11}{12} - \frac{3}{8} =$

Fractions, decimals and percentages

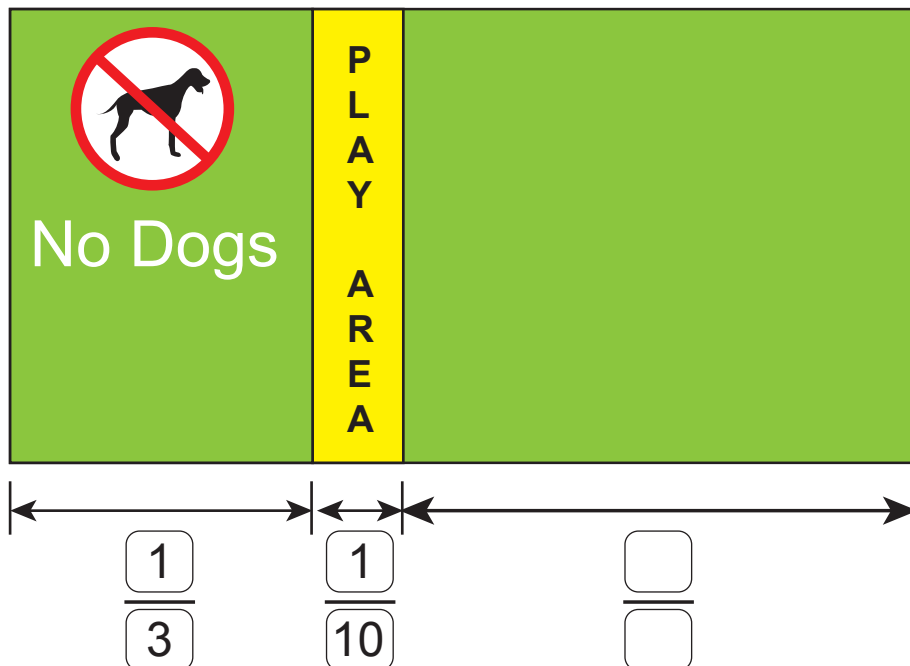
Adding and subtracting fractions

Worded questions

- 9 A council decides to turn $\frac{1}{3}$ of a park into a dog-free zone.

It later bans dogs from the play area which occupies $\frac{1}{10}$ of the park and which was originally outside the dog-free zone.

What fraction of the park is now open to dogs?



answer

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- 10** In a school $\frac{1}{3}$ of the children eat school dinners,
 $\frac{1}{2}$ bring packed lunches and the rest go home.

What fraction of the children go home for lunch?

answer

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- 11 A garden has an area of $\frac{2}{5}$ hectare.

The owner buys an extra $\frac{1}{3}$ hectare of land to increase the size of the garden.

What is the new size of the garden?

answer