

Examples

Workout



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Question 1: Work out the following divisions.
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{1}{5} \div \frac{2}{3}$ (b) $\frac{3}{4} \div \frac{4}{5}$ (c) $\frac{1}{2} \div \frac{7}{8}$ (d) $\frac{2}{3} \div \frac{5}{6}$

(e) $\frac{1}{10} \div \frac{4}{9}$ (f) $\frac{6}{11} \div \frac{5}{6}$ (g) $\frac{2}{5} \div \frac{13}{15}$ (h) $\frac{3}{8} \div \frac{7}{9}$

(i) $\frac{3}{5} \div \frac{1}{2}$ (j) $\frac{7}{9} \div \frac{2}{3}$ (k) $\frac{8}{15} \div \frac{7}{10}$ (l) $\frac{9}{10} \div \frac{1}{3}$

(m) $\frac{5}{6} \div \frac{3}{4}$ (n) $\frac{13}{20} \div \frac{8}{11}$ (o) $\frac{4}{17} \div \frac{3}{16}$ (p) $\frac{5}{7} \div \frac{10}{19}$

Question 2: Work out the following divisions
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{3}{4} \div 2$ (b) $\frac{4}{7} \div 8$ (c) $\frac{11}{20} \div 3$ (d) $\frac{9}{40} \div 5$

(e) $4 \div \frac{2}{3}$ (f) $2 \div \frac{3}{4}$ (g) $12 \div \frac{2}{3}$ (h) $5 \div \frac{2}{9}$

Question 3: Work out the following divisions.
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{2}{3} \div 1\frac{4}{5}$ (b) $1\frac{1}{2} \div 1\frac{9}{10}$ (c) $2\frac{3}{7} \div \frac{1}{2}$ (d) $2\frac{1}{3} \div 5\frac{1}{2}$

(e) $3 \div 2 \frac{1}{8}$ (f) $4 \frac{1}{3} \div 2 \frac{9}{10}$ (g) $6 \frac{5}{6} \div 2$ (h) $1 \frac{5}{12} \div 2 \frac{2}{11}$

Apply

Question 1: Work out the missing number

$$\frac{9}{11} \times \boxed{} = \frac{3}{4}$$

Question 2: Work out

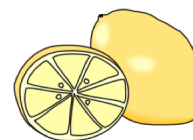
(a) $\frac{4}{5} \div \frac{3}{10} \div \frac{1}{8}$ (b) $\frac{7}{9} + \frac{1}{2} \div \frac{3}{5}$

Question 3: James shares $\frac{5}{8}$ of a cake between 6 people.
What fraction of the cake do they each receive?



Question 4: John has 12 cans of dog food.
He has two dogs and he gives each dog $\frac{2}{3}$ of a can of dog food each day.
Does he have enough dog food to last one week?

Question 5: Alisha has $\frac{7}{8}$ litres of lemonade.
She is pouring glasses that each contain $\frac{1}{5}$ litres.
How many full glasses can she pour?

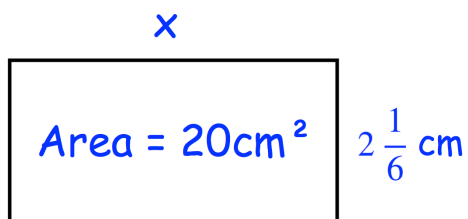


Question 6: Helen is cutting lengths of string from a roll that is $9 \frac{1}{3}$ metres long.
Each length of string is $\frac{1}{9}$ metres long.
How many lengths of string can Helen cut from the roll?

Fractions: Division

Video 134 on www.corbettmaths.com

Question 7: Shown is a rectangle.
Find the value of x



Question 8: Lee has completed his homework.
Can you spot any mistakes?

Work out

$$\frac{2}{3} \div \frac{8}{11}$$

Give your answer as a fraction in its simplest form.

$$\begin{aligned} \frac{2}{3} \times \frac{8}{11} \\ = \frac{16}{33} \end{aligned}$$

Work out

$$1\frac{4}{7} \div 1\frac{1}{4}$$

Give your answer as a mixed number.

$$\begin{aligned} \frac{11}{7} \div \frac{5}{4} \\ = \frac{11}{7} \times \frac{4}{5} = \frac{44}{35} \end{aligned}$$

Answers



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Examples

Workout



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Question 1: Work out the following additions and subtractions.
Give your answers as simplified fractions.

- | | | | |
|-----------------------------------|----------------------------------|-----------------------------------|-------------------------------------|
| (a) $\frac{2}{5} + \frac{1}{2}$ | (b) $\frac{2}{7} + \frac{1}{2}$ | (c) $\frac{1}{3} + \frac{1}{2}$ | (d) $\frac{4}{5} - \frac{2}{3}$ |
| (e) $\frac{8}{9} - \frac{1}{3}$ | (f) $\frac{2}{3} + \frac{1}{6}$ | (g) $\frac{3}{10} + \frac{2}{5}$ | (h) $\frac{3}{8} + \frac{1}{4}$ |
| (i) $\frac{7}{15} - \frac{1}{5}$ | (j) $\frac{3}{4} - \frac{2}{5}$ | (k) $\frac{3}{10} + \frac{3}{8}$ | (l) $\frac{2}{5} + \frac{4}{7}$ |
| (m) $\frac{11}{15} - \frac{1}{6}$ | (n) $\frac{5}{11} + \frac{1}{4}$ | (o) $\frac{3}{14} + \frac{1}{3}$ | (p) $\frac{11}{13} - \frac{1}{2}$ |
| (q) $\frac{7}{20} + \frac{2}{5}$ | (r) $\frac{8}{9} - \frac{3}{5}$ | (s) $\frac{11}{18} + \frac{1}{6}$ | (t) $\frac{39}{100} - \frac{7}{20}$ |
| (u) $\frac{4}{15} + \frac{5}{12}$ | (v) $\frac{2}{3} - \frac{9}{16}$ | (w) $\frac{19}{30} + \frac{1}{8}$ | (x) $\frac{7}{12} + \frac{3}{14}$ |

Question 2: Work out the following additions.
Give your answers as simplified fractions.
If necessary, give any answers as mixed numbers.

- | | | | |
|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|
| (a) $\frac{3}{4} + \frac{1}{2}$ | (b) $\frac{5}{9} + \frac{2}{3}$ | (c) $\frac{7}{10} + \frac{1}{3}$ | (d) $\frac{4}{5} + \frac{3}{4}$ |
| (e) $\frac{19}{20} + \frac{4}{5}$ | (f) $\frac{5}{9} + \frac{13}{18}$ | (g) $\frac{5}{12} + \frac{9}{10}$ | (h) $\frac{4}{7} + \frac{7}{8}$ |

Question 3: Work out the following additions and subtractions.
Give your answers as simplified fractions.
If necessary, give any answers as mixed numbers.

- | | | | |
|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
| (a) $1\frac{1}{2} + \frac{2}{3}$ | (b) $\frac{7}{9} + 1\frac{1}{3}$ | (c) $1\frac{3}{5} - \frac{3}{4}$ | (d) $1\frac{5}{8} - 1\frac{1}{4}$ |
|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|

(e) $2\frac{1}{2} + 1\frac{1}{3}$ (f) $2\frac{2}{9} - 1\frac{1}{3}$ (g) $2\frac{2}{9} + \frac{5}{6}$ (h) $1\frac{5}{12} + 1\frac{5}{8}$
 (i) $3\frac{1}{10} + 2\frac{2}{3}$ (j) $1\frac{8}{9} - \frac{4}{7}$ (k) $3\frac{2}{3} - 1\frac{11}{20}$ (l) $4\frac{8}{15} + 3\frac{1}{3}$

Apply

Question 1: In a car park, $\frac{2}{3}$ of the cars are red.

$\frac{1}{5}$ of the cars are blue.

What fraction of the cars are red or blue?

Question 2: This week Harry spent $\frac{1}{2}$ of his pocket money on a ticket for a football match.

He also spent $\frac{1}{8}$ of his pocket money on a scarf at the match.

(a) What fraction of his pocket money has Harry spent?

(b) What fraction of his pocket money does Harry have left?

Question 3: On an airplane, the passengers may have chicken, vegetable or tomato soup.
 Half of the passengers choose chicken soup
 A third of the passengers choose tomato soup.

(a) What fraction of the passengers choose vegetable soup?

There are 240 passengers on the airplane.

(b) How many passengers choose vegetable soup?

Question 4: Patrick has a bag of sugar that contains $\frac{5}{6}$ kg

He uses $\frac{3}{5}$ kg of sugar to make a cake.

How much sugar does Patrick have left?

Question 5: Work out $\frac{1}{6} + \frac{1}{2} + \frac{2}{9}$

Adding Fractions: Different Denominators

Video 133 on www.corbettmaths.com

Question 6: Jasmine has a bottle that contains $\frac{7}{10}$ litre of orange juice.

She pours out some orange juice and now has $\frac{1}{4}$ litre left.

How much orange juice did Jasmine pour out?

Question 7: In school, pupils study one language.
They choose either French, Spanish or Italian.

$\frac{3}{20}$ of the pupils study Italian and $\frac{5}{8}$ of the pupils study French

What fraction of the pupils study Spanish?

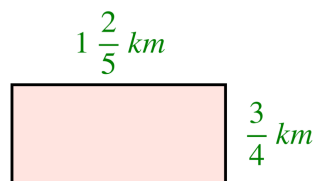
Question 8: Shown below is a “magic square”
Each column, row and diagonal has the same total.
Work out the missing fractions.

$\frac{1}{10}$		$\frac{3}{10}$
$\frac{9}{20}$		
$\frac{1}{5}$	$\frac{3}{20}$	

Question 9: Lenny says $\frac{7}{11} + \frac{2}{3} = \frac{9}{14}$

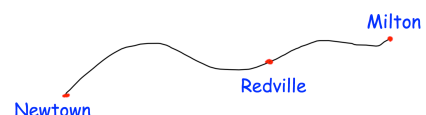
Explain what he has done incorrectly and work out the correct answer.

Question 10: Work out the perimeter of this rectangle.



Question 11: The distance from Newtown to Milton is $7 \frac{2}{3}$ miles.

The distance from Milton to Redville is $2 \frac{2}{5}$ miles



Work out the distance from Newtown to Redville.

Answers



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Examples

Workout



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Question 1: Work out each of the following multiplications.
Give each answer in its simplest form.

(a) $\frac{1}{2} \times \frac{1}{5}$ (b) $\frac{1}{2} \times \frac{3}{4}$ (c) $\frac{1}{4} \times \frac{3}{5}$ (d) $\frac{1}{3} \times \frac{1}{3}$

(e) $\frac{5}{6} \times \frac{1}{2}$ (f) $\frac{3}{4} \times \frac{1}{4}$ (g) $\frac{2}{3} \times \frac{1}{7}$ (h) $\frac{5}{8} \times \frac{1}{3}$

(i) $\frac{2}{3} \times \frac{1}{2}$ (j) $\frac{1}{3} \times \frac{3}{4}$ (k) $\frac{3}{10} \times \frac{1}{2}$ (l) $\frac{2}{5} \times \frac{1}{4}$

(m) $\frac{2}{7} \times \frac{3}{4}$ (n) $\frac{5}{7} \times \frac{1}{10}$ (o) $\frac{7}{12} \times \frac{2}{3}$ (p) $\frac{6}{7} \times \frac{2}{3}$

(q) $\frac{6}{7} \times \frac{2}{9}$ (r) $\frac{3}{10} \times \frac{5}{6}$ (s) $\frac{6}{15} \times \frac{3}{4}$ (t) $\frac{3}{5} \times \frac{11}{15}$

(u) $\frac{9}{20} \times \frac{10}{11}$ (v) $\frac{21}{30} \times \frac{2}{3}$ (w) $\frac{12}{25} \times \frac{5}{8}$ (x) $\frac{8}{9} \times \frac{3}{16}$

Question 2: Work out the following multiplications
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

(a) $\frac{1}{5} \times 3$ (b) $7 \times \frac{1}{8}$ (c) $\frac{1}{10} \times 4$ (d) $30 \times \frac{1}{2}$

(e) $8 \times \frac{3}{4}$ (f) $\frac{2}{3} \times 12$ (g) $5 \times \frac{1}{3}$ (h) $8 \times \frac{2}{5}$

(i) $\frac{4}{5} \times 20$ (j) $\frac{2}{7} \times 8$ (k) $8 \times \frac{5}{4}$ (l) $\frac{1}{5} \times 360$

Multiplying Fractions

Video 142 on www.corbettmaths.com

Question 3: Work out the following divisions.
Give your answers as simplified fractions.
If any answers are top heavy fractions, write as mixed numbers.

- (a) $1\frac{2}{3} \times \frac{1}{4}$ (b) $\frac{2}{5} \times 1\frac{1}{4}$ (c) $\frac{3}{4} \times 1\frac{1}{2}$ (d) $2\frac{1}{2} \times \frac{7}{10}$
- (e) $\frac{1}{4} \times 3\frac{1}{3}$ (f) $1\frac{2}{3} \times 1\frac{1}{4}$ (g) $4\frac{3}{5} \times 1\frac{2}{3}$ (h) $1\frac{2}{11} \times \frac{8}{9}$
- (i) $2\frac{5}{6} \times 2\frac{1}{5}$ (j) $1\frac{1}{9} \times 3\frac{3}{10}$ (k) $3\frac{1}{8} \times 2\frac{1}{2}$ (l) $2\frac{6}{7} \times 3\frac{1}{5}$

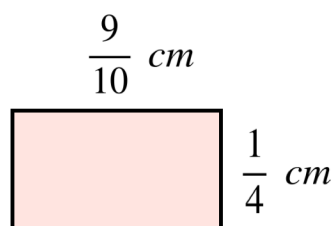
Apply

Question 1: Work out $\frac{4}{5} \times 1\frac{1}{2} \times \frac{7}{8}$

Question 2: Work out the missing number

$$\square \div \frac{7}{15} = \frac{2}{3}$$

Question 3: Find the area of this rectangle.
Include suitable units.



Question 4: Alexis has a pet dog, Maxi.

Each day, Maxi eats $\frac{2}{3}$ of a can of dog food.

Alexis is buying dog food for one week.

How many cans of dog food should Alexis buy?



Multiplying Fractions

Video 142 on www.corbettmaths.com

Question 5: Kelly spends $\frac{1}{4}$ of her savings on driving lessons.
Kelly then spends $\frac{2}{3}$ of her remaining savings on a new car.
What fraction of her savings has Kelly spent?

Question 6: Work out

$$\frac{9}{10} + \left(\frac{5}{7}\right)^2$$

Question 7: A wall measures $3\frac{3}{4}m$ by $4\frac{1}{3}m$

Each can of paint cover $2.5m^2$ and costs £5.50



Work out the cost of painting the wall.

Question 8: Callum has completed his maths homework.
Can you spot any mistakes?

Work out

$$\frac{1}{3} \times \frac{1}{6}$$

$$\frac{2}{18} = \frac{1}{9}$$

Work out

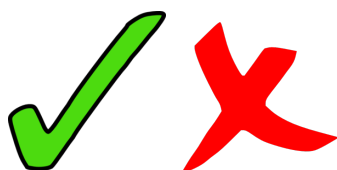
$$1\frac{3}{10} \times 2\frac{1}{2}$$

$$\frac{13}{10} \times \frac{5}{2} = \frac{75}{20}$$

$$60\frac{15}{20}$$

$$60\frac{3}{4}$$

Answers



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