## Subtract fractions

Complete the subtractions.
Use the bar models to help you.
a)
a)

$\frac{2}{3}-\frac{1}{3}=\frac{1}{3}$
b) $\square$ $\frac{2}{5}-\frac{1}{5}=\frac{1}{5}$
c) $\square$ $\frac{3}{5}-\frac{1}{5}=\frac{2}{5}$
d) $\square$ $\frac{4}{5}-\frac{1}{5}=\frac{3}{5}$
(2) Jack has $\frac{7}{8}$ of a chocolate bar. He eats $\frac{4}{8}$ of the chocolate bar. What fraction of the chocolate bar does he have left?
$\square$ of the chocolate bar left.
(3) Complete the subtractions.

Simplify your answers where possible
a) $\frac{7}{10}-\frac{1}{10}=\frac{6}{10}=\frac{3}{5}$
b) $\frac{7}{10}-\frac{2}{10}=\frac{5}{10}=\frac{1}{2}$
c) $\frac{7}{10}-\frac{3}{10}=\frac{4}{10}=\frac{2}{5}$
d) $\frac{7}{12}-\frac{3}{12}=\frac{4}{12}=\frac{1}{3}$
e) $\frac{8}{12}-\frac{4}{12}=\frac{4}{12}=\frac{1}{3}$
f) $\frac{9}{12}-\frac{5}{12}=\frac{4}{12}=\frac{1}{3}$
g) $\frac{9}{59}-\frac{5}{59}=\frac{4}{59}$
h) $\frac{13}{127}-\frac{9}{127}=\frac{4}{127}$
(4) Complete the part-whole models.
a)

c)

b)

(5) Complete the part-whole model in four different ways.

(6) Kim has read $\frac{6}{7}$ of her book.

Tom has read $\frac{2}{7}$ of his book.
a) Shade the bar models to represent this information.

b) How much more has Kim read than Tom? Kim has read $\frac{4}{7}$ more of her book than Tom.

7 Write the missing numerators.
a) $\frac{8}{9}-\frac{\square}{9}=\frac{7}{9}$
e) $\frac{7}{10}-\frac{5}{10}=\frac{1}{10}+\frac{\square}{10}$
b) $\frac{5}{11}-\frac{\square}{11}=\frac{4}{11}$
f) $\frac{3}{4}-\frac{1}{4}=\frac{1}{4}+\frac{1}{4}$
c) $\frac{8}{9}-\frac{\square}{9}=\frac{3}{9}+\frac{4}{9}$
g) $\frac{5}{5}-\frac{2}{5}=\frac{1}{5}+\frac{2}{5}$
d) $\frac{7}{9}-\frac{5}{9}=\frac{6}{9}-\frac{4}{9}$
h) $\frac{4}{5}+\frac{1}{5}=\frac{3}{7}-\frac{2}{7}+\frac{6}{7}$
(8) Complete the table to show three possible values of the square and triangle.

$$
\frac{\square}{92}-\frac{\square}{92}=\frac{13}{92}
$$

e.g.

|  | $\square$ |
| :---: | :---: |
| 14 | 1 |
| 20 | 7 |
| 30 | 17 |

How many other answers can you find?Complete the subtractions.
a)

$\frac{4}{5}-\frac{1}{5}=\frac{3}{5}$
b)

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

$\frac{5}{7}-\frac{3}{7}=\frac{2}{7}$
") Whawn wa -
$\frac{7}{9}-\frac{4}{9}=\frac{3}{9}$
(2) Complete the calculations.
a) $\frac{7}{10}-\frac{3}{10}=\frac{4}{10}$
e) $\frac{9}{11}-\frac{3}{11}=\frac{6}{11}$
(3) Complete the subtractions
a) $\frac{9}{5}-\frac{6}{5}=\frac{3}{5}$
e) $\frac{8}{3}-\frac{4}{3}=\frac{4}{3}=1 \frac{1}{3}$
b) $\frac{9}{5}-\frac{5}{5}=\frac{4}{5}$
f) $\frac{11}{3}-\frac{4}{3}=\frac{7}{3}=2 \frac{1}{3}$
c) $\frac{9}{5}-\frac{4}{5}=\frac{5}{5}=\square$
g) $\frac{14}{3}-\frac{4}{3}=\frac{10}{3}=3 \frac{1}{3}$
d) $\frac{9}{2}-\frac{4}{2}=\frac{5}{2}=2 \frac{1}{2}$
h) $\frac{15}{3}-\frac{5}{3}=\frac{10}{3}=3 \frac{1}{3}$
(4) Jack has $2 \frac{1}{4} \mathrm{~kg}$ of potatoes.

He uses $\frac{5}{4} \mathrm{~kg}$ of potatoes.
How many kilograms does he have left?

Jack has

(5) Complete the part-whole models.

b)


6 Complete the part-whole model in two different ways.

7) Fill in the missing numerators.
a) $\frac{10}{11}-\frac{3}{11}=\frac{7}{11}$
b) $\frac{10}{11}-\frac{7}{11}=\frac{7}{11}-\frac{4}{11}$
c) $\frac{10}{11}-\frac{4}{11}=\frac{13}{11}-\frac{7}{11}$
d) $\frac{15}{4}-\frac{\boxed{7}}{4}=2$
e) $\frac{9}{4}-\frac{1}{4}=\frac{\square}{4}+1$
f) $\frac{11}{4}-\frac{3}{4}=\frac{11}{3}-\frac{5}{3}$
(8) Alex and Annie are taking turns playing a computer game. Annie plays for a total of $2 \frac{1}{4}$ hours.
Annie plays for $\frac{3}{4}$ of an hour more than Alex.
How much time do they spend in total playing on the game?Use the bar models to help you subtract the fractions.
a)


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

b)

d)

b) $1-\frac{5}{8}=\frac{3}{8}$
e) $4-\frac{5}{7}=3 \frac{2}{7}$
c) $2-\frac{5}{8}=1 \frac{3}{8}$

$$
\text { f) } 4-\frac{7}{5}=2 \frac{3}{5}
$$

(3) Match the numbers with a difference of $\frac{3}{4}$


Aisha has 4 pies.

a) Aisha gives $\frac{5}{8}$ of a pie to Mo. How many pies does Aisha have left?

b) Aisha then gives 2 pies to Jack.

Calculate the difference between how much pie Aisha now has and how much pie Mo has.
6) Complete the calculations.
a) $3-\frac{7}{10}=2 \frac{3}{10}$
c)

b) $4-\frac{5}{8}=3 \frac{3}{8}$
d)

(7) Teddy has 4 litres of juice and 3 jugs.


Teddy pours $\frac{3}{4}$ of a litre into each jug. How much juice does Teddy have left?

Teddy has $\square$ litres of juice left.
(1) Here are some counters.

a) Circle $\frac{1}{4}$ of the counters.
b) How many counters did you circle?

c) What is $\frac{1}{4}$ of 12 ? $\square$
(2) Draw counters in the bar models to help you complete each number sentence. The first one has been done for you.

a) $\frac{1}{2}$ of $8=4 \quad$| 4 |
| :---: |

b) $\frac{1}{2}$ of $16=8$

c) $\frac{1}{4}$ of $8=2$ $\square$
d) $\frac{1}{4}$ of $16=4$


4 Complete the table.

| Fraction | Division | Example | Drawing |
| :---: | :---: | :---: | :---: |
| one half | divide by 2 | $\frac{1}{2}$ of $6=3$ | $\frac{1}{4}$ of $8=2$ |
| one quarter | divide by 4 |  |  |
| one third | divide by 3 | $\frac{1}{3}$ of $15=5$ |  |
| one fifth | divide by 5 | $\frac{1}{5}$ of $15=3$ | 0 |

(5)

Huan uses a bar model and base 10 to find $\frac{1}{3}$ of 36


Use Huan's method to complete the calculations.
a) $\frac{1}{3}$ of $63=21$
b) $\frac{1}{4}$ of $48=12$
c) $\frac{1}{4}$ of $92=23$
(6) Nijah uses a bar model and place value counters to find $\frac{1}{3}$ of 36

Use Nijah's method to complete the calculations.
a) $\frac{1}{3}$ of $96=32$
b) $\frac{1}{5}$ of $60=12$
c) $\frac{1}{4}$ of $52=13$
(7) Which amount is greater? Tick your answer.

$\frac{1}{3}$ of $£ 75$

Show your workings.


8 Complete the number sentences
a) $\frac{1}{2}$ of $60=30$
b) $\frac{1}{4}$ of $80=20$
c) $\frac{1}{5}$ of $250=50$
9) Rosie, Amir and Alex each find a fraction of 24 using counters.

a) Order the children from least counters to most counters.

b) What fraction of the counters does Alex have?
c) Rosie and Amir put their counters together.

Write their total number of counters as a fraction of 24

