

Add 3 or more fractions



1 Complete the additions.

Use the bar models to help you.

a)



$$\frac{1}{2} + \frac{1}{4} + \frac{1}{12} = \frac{5}{6}$$

b)



$$\frac{1}{2} + \frac{1}{3} + \frac{1}{12} = \frac{11}{12}$$

c)



$$\frac{2}{3} + \frac{1}{6} + \frac{1}{12} = \frac{11}{12}$$

d)



$$\frac{1}{3} + \frac{1}{4} + \frac{1}{6} = \frac{3}{4}$$

2 Complete the additions.

$$\text{a) } \frac{1}{5} + \frac{3}{10} + \frac{7}{20} = \frac{17}{20}$$

$$\text{d) } \frac{3}{16} + \frac{1}{2} + \frac{1}{4} = \frac{15}{16}$$

$$\text{b) } \frac{1}{16} + \frac{5}{32} + \frac{3}{8} = \frac{19}{32}$$

$$\text{e) } \frac{1}{2} + \frac{5}{18} + \frac{1}{9} = \frac{8}{9}$$

$$\text{c) } \frac{1}{4} + \frac{5}{24} + \frac{5}{12} = \frac{7}{8}$$

$$\text{f) } \frac{1}{5} + \frac{8}{35} + \frac{2}{7} = \frac{5}{7}$$

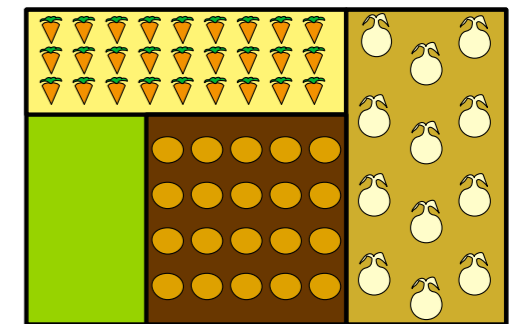
Explain how common multiples help when adding the fractions.

3 Rosie has a vegetable patch.

$\frac{2}{9}$ of the patch contains carrots.

$\frac{5}{18}$ of the patch contains potatoes.

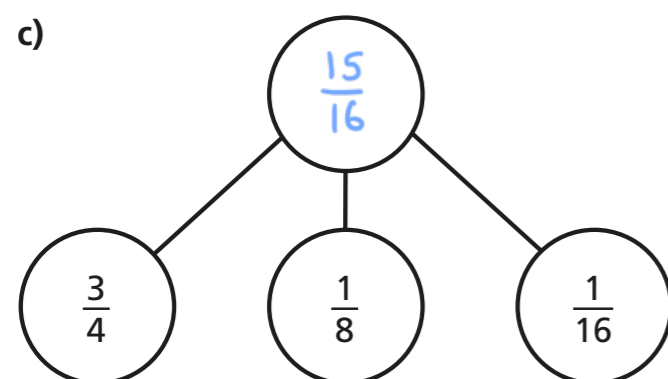
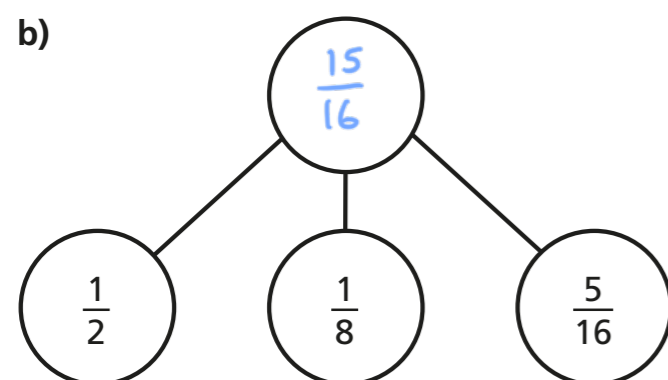
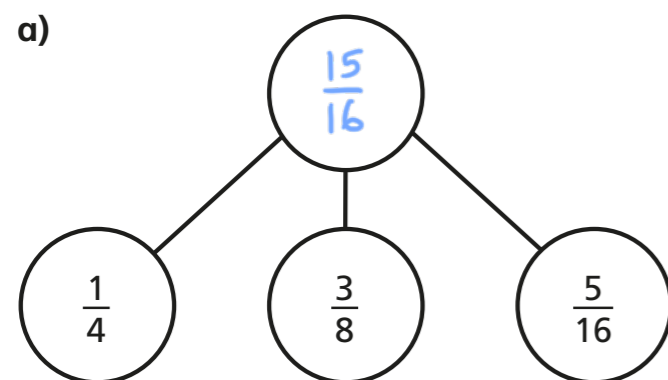
$\frac{1}{3}$ of the patch contains onions.



What fraction of the patch contains carrots, potatoes or onions?

$$\frac{5}{6} \text{ of the patch contains carrots, potatoes or onions.}$$

4 Complete the part-whole models.



d) Which one of the part-whole models is the odd one out?

Is there more than one answer?

Explain how you know.

Various answers.

5 Fill in the missing numerators.

a) $\frac{1}{8} + \frac{\boxed{2}}{16} + \frac{3}{8} = \frac{5}{8}$

d) $\frac{1}{8} + \frac{\boxed{6}}{16} + \frac{1}{4} = \frac{3}{4}$

b) $\frac{1}{8} + \frac{\boxed{6}}{16} + \frac{3}{8} = \frac{7}{8}$

e) $\frac{1}{8} + \frac{1}{16} + \frac{\boxed{9}}{16} = \frac{3}{4}$

c) $\frac{1}{4} + \frac{\boxed{2}}{16} + \frac{3}{8} = \frac{3}{4}$

f) $\frac{1}{4} + \frac{1}{16} + \frac{\boxed{7}}{16} = \frac{3}{4}$

6 Complete the number square.

The total of each column is $\frac{4}{5}$

The total of each row is $\frac{4}{5}$

$\frac{3}{10}$	$\frac{2}{5}$	$\frac{1}{10}$
$\frac{3}{20}$	$\frac{1}{10}$	$\frac{11}{20}$
$\frac{7}{20}$	$\frac{3}{10}$	$\frac{3}{20}$

Create your own problem like this for a partner.
