

Fraction problems

Solve problems involving fractions



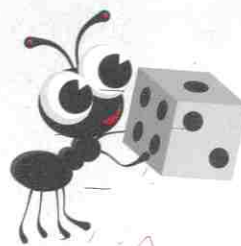
Challenge 1

1 Work out how much pie is left. Start with one whole pie.


- Roll the dice and read the number as a unit fraction. This will be the amount of pie that will be eaten. Roll again if you roll a 1.
- Write the subtraction calculation to work out what fraction of the pie is left.
- Repeat until there is less than $\frac{1}{4}$ of the pie left. Do this for three pies.

You will need:


- 1–6 dice




Example



$$1 - \frac{1}{4} = \frac{3}{4}$$



$$\frac{3}{4} - \frac{1}{3} = \frac{5}{12}$$




$$\frac{5}{12} - \frac{1}{5} = \frac{13}{60}$$

$\frac{13}{60}$ is less than $\frac{1}{4}$

2 These ingredients are for 1 apple pie. The chef wants to cook 2 pies. Work out how much of each ingredient she needs.

Apple pie ingredients



$\frac{3}{8}$ kg butter

$\frac{1}{4}$ kg flour

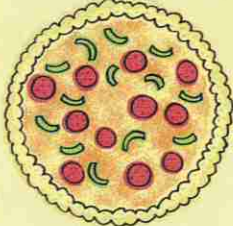
$\frac{1}{10}$ kg sugar

$\frac{4}{5}$ kg apples

Challenge 2

1 These ingredients are for 1 pizza. The chef wants to cook 6 pizzas. Work out how much of each ingredient he needs.

Pizza ingredients



$\frac{3}{10}$ kg flour

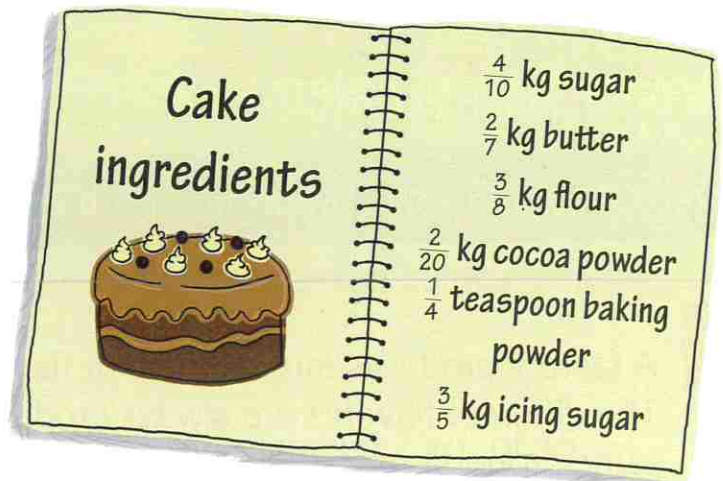
$\frac{2}{6}$ litre of water

$\frac{3}{8}$ litre of tomato sauce

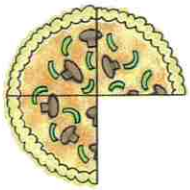
$\frac{2}{5}$ kg mozzarella cheese

$\frac{2}{3}$ kg mushrooms

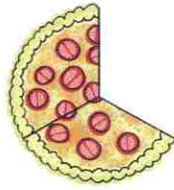
- 2 These ingredients are for 2 cakes. The chef wants to cook 8 cakes. Work out how much of each ingredient he needs. Write your answers as mixed numbers.



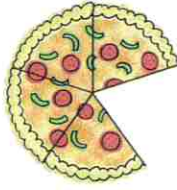
- 3 These pizzas are shared out between five friends. How much of a whole pizza will each person get?



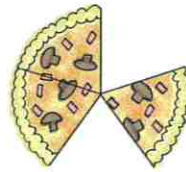
a $\frac{3}{4}$



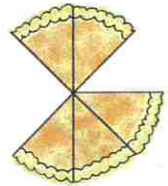
b $\frac{2}{3}$



c $\frac{4}{5}$



d $\frac{3}{5}$



e $\frac{5}{8}$

- 1 Choose three fractions from below and add them together. Work out the answer to each fraction calculation, writing your answer in its simplest form. Make six different fraction calculations in this way.

$$\frac{1}{2}$$

$$\frac{1}{8}$$

$$\frac{1}{4}$$

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

$$\frac{7}{8}$$

$$\frac{2}{5}$$

$$\frac{3}{8}$$

$$\frac{5}{6}$$

$$\frac{3}{5}$$

$$\frac{1}{6}$$

- 2 Choose 3 fractions from above. Add two of the fractions together and subtract the third. Work out the answer to each fraction calculation, writing your answer in its simplest form. Make six different fraction calculations in this way.

