

Problem solving with fractions

1 Which is greater? Tick your answer.

$$\frac{107}{5}$$

$$20\frac{3}{4}$$

Show your workings.

2 Find the value of the star.

$$\frac{1}{3} = \frac{1+5}{3+\star}$$

$$\star = \square$$

3 Here are some number cards.

15	10	9	4	3
----	----	---	---	---

Use two of the number cards to make a number as close to 4 as possible.

4 There are 40 children in a playground.

$\frac{2}{5}$ of the children are boys and the rest are girls.

$\frac{1}{8}$ of the girls are playing football.

How many girls are playing football?

5 Amir is thinking of a number.



One half of my number is 14

a) What number is Amir thinking of?

b) Find $\frac{2}{7}$ of Amir's number.



- 6 A box contains some coloured pencils.
There are 20 more red pencils than green pencils.

$\frac{3}{10}$ of the red pencils are blunt.

$\frac{1}{4}$ of the green pencils are blunt.

There are 5 blunt green pencils.

How many blunt red pencils are there?

- 7 Work out the missing numbers.

a) $\frac{2}{5}$ of 60 = 3 ×

b) $\frac{4}{5}$ of 40 = $\frac{1}{2}$ of

- 8 The symbol  means triple the first number, then add the second number. For example, $7 \text{ } \star \text{ } 4 = 25$

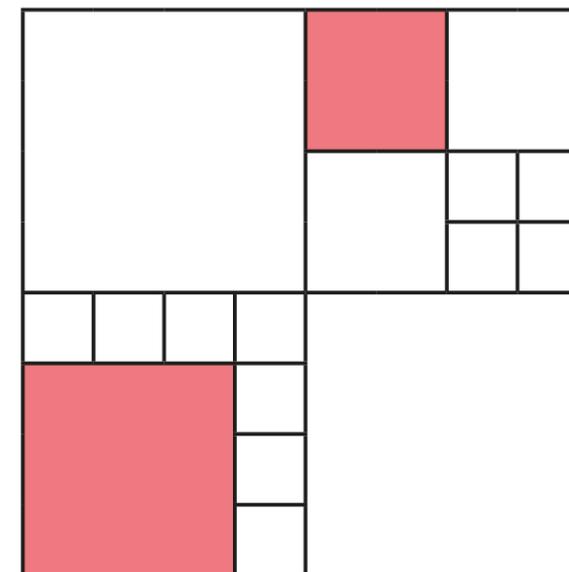
Find the missing values.

a) $\frac{1}{5} \text{ } \star \text{ } \frac{3}{10} = \text{ } \square$

b) $3 \text{ } \star \text{ } \square = 9\frac{5}{7}$

c) $(\frac{1}{2} \text{ } \star \text{ } \frac{1}{2}) \text{ } \star \text{ } 2\frac{1}{4} = \text{ } \square$

- 9 A large square is divided into small squares.
What fraction of the large square is shaded?



- 10 Here are three identical rectangles.
Part of each rectangle has been shaded.
What fraction of the middle rectangle is shaded?

