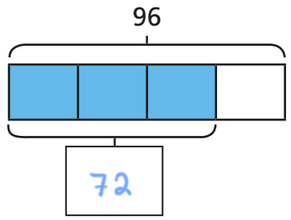
Use a given fraction to find the whole and/or other fractions

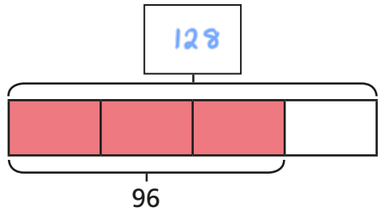
1 Complete the calculations.

a)



$\frac{3}{4}$ of 96 = 72

b)

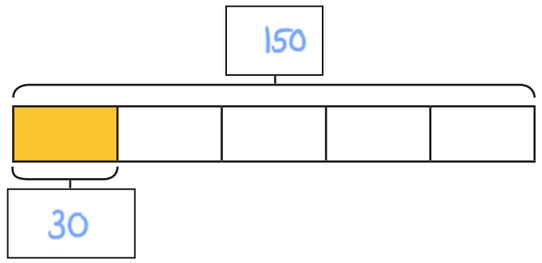


$\frac{3}{4}$ of 128 = 96

c) What is the same? What is different?

2 $\frac{1}{5}$ of a number is 30

a) Complete the bar model to represent this statement.



b) What is $\frac{2}{5}$ of the number? 60

c) What is $\frac{3}{5}$ of the number? 90

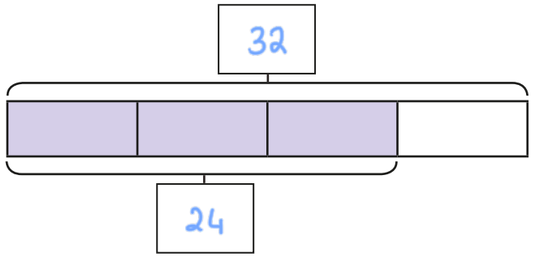
d) What is $\frac{5}{5}$ of the number? 150

e) Complete the calculation.

$\frac{1}{5}$ of 150 = 30

3 $\frac{3}{4}$ of a number is 24

Complete the bar model to represent this statement.



Complete the calculation.

$\frac{3}{4}$ of 32 = 24

4 Complete the sentences.

a) $\frac{1}{4}$ of a number is 8. The value of the whole number is 32

b) $\frac{3}{4}$ of a number is 12. The value of the whole number is 16

c) $\frac{2}{7}$ of a number is 56. The value of the whole number is 196

5 Kim scores $\frac{4}{5}$ of the marks on a test.

Her teacher says, "You only needed 6 more marks to get full marks on the test."

What was the total number of marks available?

30

6 Fill in the missing numbers to make each statement correct.

a) $\frac{2}{3}$ of [27] = $\frac{3}{4}$ of 24

b) $\frac{5}{7}$ of 560 = $\frac{4}{5}$ of [500]

c) $\frac{[6]}{6}$ of 54 = 54

d) $\frac{5}{8}$ of [120] = $\frac{3}{5}$ of [125] e.g

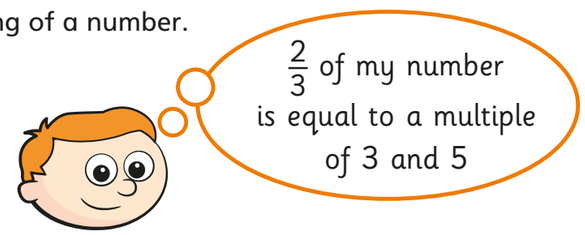
Can you find more than one possible answer for part d)?

7 Find the input of this function machine.

input			output
891	→	$\frac{4}{9}$ of the number	396

The input is [891]

8 Ron is thinking of a number.



What number could Ron be thinking of?

e.g. [45]

Can you find more than one possible answer?

9 Esther has some money.

She saves £7.50 and then spends $\frac{3}{5}$ of what is left.

She now has £21

How much money did Esther have to start with?

[£60]

10 $\frac{5}{12}$ of an expression is $60y$.

What is the expression?

[144y]

11 Filip has written a linear sequence.

He says that $\frac{5}{6}$ of the 2nd term in the sequence is 20, and that half of the 4th term is 17

Find the first four terms in the sequence.

[19], [24], [29], [34]