

Q. Problem solving. Ratio. Differences.

In a bag there are counters.

The counters are all either red or blue or yellow.

The number of red counters : The number of blue counters : The number of yellow counters = 4 : 5 : 8

The number of yellow counters is 24 more than the numbers of blue counters.

Work out the total number of counters in the bag.

Correct Solution

Difference between yellow and blue counters is

Difference between yellow and blue parts is

$\therefore$ counters are equivalent to 3 parts

$\therefore$ counters are 1 part

$\therefore$ Multiply each part of the given ratio by

counters

4: 5: 8

$(4 \times \text{}) : (5 \times \text{}) :$
 $(8 \times \text{})$

: 40 :

$\therefore \text{Total} = 32 + 40$
 $+ 64$

$=$ counters

(Total for Question 21 is 3 marks)

Q. Simplifying ratios. Converting proper fractions to ratio.

(a) Write the ratio 32 : 24 in its simplest form

Correct Solution

$$\text{HCF}(32, 24) = \square$$

So, divide each part by $\square$

$$32 : 24$$

$$= 4 : 3$$

(1)

(b) $\frac{1}{9}$ of people in a class are left handed.

Write the ratio of left handed people to right handed people

$\frac{1}{9}$ proper fraction is $\square : \square$ ratio

$\square$ part left handed: $\square$ parts right handed

$$\text{Total parts} = \square + \square = 9$$

$$\square : \square$$

(1)

For question 4 is 2 marks)