Year 7 Mathematics
Understanding Fractions Decimals and Percentages 1

1 Find the complete set of factors for each of these numbers

a) 12 b) 30

2 Write down the first 6 multiples for each of the numbers

a) 7 b) 45

3 Express 195 as a product of two factors, both of which are greater than 10

4 Find the highest common factor (HCF) of 18 and 42

5 Find the lowest common multiple (LCM) of the following pairs of numbers

a) 5 and 7 b) 4 and 10

6 a) Into how many pieces has the circle be divided?

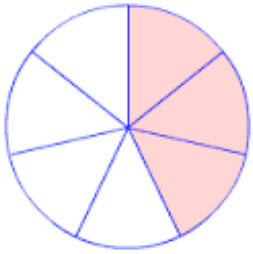
b) How many pieces are coloured?

c) In simplest form, when representing the coloured fraction of the circle

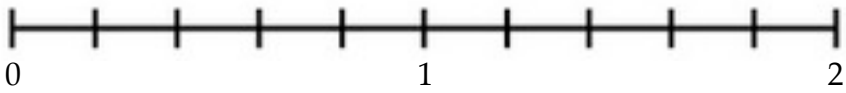
i What must the denominator equal?

ii What must the numerator equal?

iii Write the fraction of circle which is coloured?



7 Respresent the fractions $\frac{3}{5}$ and $\frac{9}{5}$ on the number line



8 Write four fractions equivalent to $\frac{3}{5}$

9 By writing either = or ≠ between the fractions, state whether the following pairs of fractions are equivalent or not equivalent.

a) $\frac{1}{3}$ $\frac{3}{7}$ b) $\frac{4}{5}$ $\frac{20}{25}$

10 Write these fractions in simplest form.

a) $\frac{14}{20}$ b) $\frac{6}{42}$

11 Convert $3\frac{1}{4}$ to an improper fraction

12 Convert $\frac{18}{5}$ to a mixed numeral

13 Convert $\frac{20}{6}$ to a mixed numeral in simplest form

14 Place the correct mathematical symbol (i.e. <, = or >) in between the following pairs of fractions to make true mathematical statements.

a) $\frac{2}{5} \square \frac{4}{5}$ b) $\frac{1}{3} \square \frac{1}{5}$ c) $\frac{2}{3} \square \frac{3}{5}$ d) $2\frac{3}{7} \square \frac{16}{7}$

ANSWERS

Question 1

a) 1, 2, 3, 4, 6, 12 b) 1, 2, 3, 5, 6, 10, 15, 30

Question 2

a) 6, 12, 18, 24, 30, 36 b) 45, 90, 135, 180, 225, 270

Question 3

a) 13 and 15

Question 4

6

Question 5

a) 35 b) 20

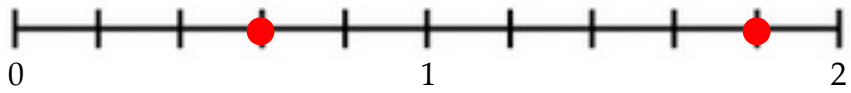
Question 6

a) 7

b) 3

c) i) 7 ii) 3 iii) 3/7

Question 7



Question 8 $\frac{6}{10}$ $\frac{9}{15}$ $\frac{12}{20}$ $\frac{15}{25}$ ……..

Question 9

a) $\frac{1}{3} \neq \frac{3}{7}$ b) $\frac{4}{5} = \frac{20}{25}$

Question 10

a) $\frac{7}{10}$ b) $\frac{1}{7}$

Question 11 $\frac{13}{4}$

Question 12 $3\frac{3}{5}$

Question 13 $3\frac{1}{3}$

Question 14

a) $\frac{2}{5} < \frac{4}{5}$ b) $\frac{1}{3} > \frac{1}{5}$ c) $\frac{2}{3} > \frac{3}{5}$ d) $2\frac{3}{7} > \frac{16}{7}$