

Worksheet 2015-6AI-00003

FRACTIONS

EQUIVALENT FRACTIONS



$\frac{1}{2} \times \frac{3}{3} = \frac{3}{6} \text{ therefore } \frac{1}{2} = \frac{3}{6}$

(1) Write down the equivalent Fractions.

GOLDEN RULE: What you do above the line should be applied below the line.

(a) $\frac{1}{5} \times - = \frac{3}{15}$

(b) $\frac{1}{6} \times - = \frac{4}{24}$

(c) $\frac{1}{4} \times \frac{3}{3} = -$

(d) $\frac{2}{8} \times \frac{4}{4} = \frac{-}{32}$

(e) $\frac{1}{7} \times - = \frac{-}{35}$

(f) $\frac{2}{4} \times - = \frac{10}{-}$

(g) $\frac{4}{6} \times - = \frac{-}{30}$

(h) $\frac{5}{5} \times \frac{25}{5} = \frac{25}{40}$

(i) $\frac{3}{2} \times \frac{-}{2} = \frac{-}{18}$

(j) $\frac{-}{6} \times - = \frac{36}{54}$

(k) $\frac{4}{6} \times - = \frac{-}{42}$

(l) $\frac{2}{7} \times - = \frac{-}{56}$

(m) $\frac{4}{8} \times - = \frac{-}{72}$

(n) $\frac{2}{-} \times \frac{-}{9} = \frac{-}{81}$

(o) $\frac{1}{5} \times - = \frac{14}{-}$

(2) Write the mixed fractions as improper fractions.

(a) $1\frac{1}{3} = \frac{-}{3} \times \frac{4}{4} =$

(b) $1\frac{1}{2} = - \times \frac{3}{3} = -$

(c) $7\frac{1}{3} = - \times \frac{7}{7} = -$

(d) $3\frac{7}{8} = - \times \frac{3}{3} = -$

(e) $2\frac{2}{4} = - \times - = \frac{80}{32}$

(f) $2\frac{4}{6} = - \times \frac{4}{4} = -$

(g) $3\frac{3}{4} = - \times \frac{4}{4} = -$

(h) $3\frac{1}{5} = - \times - = \frac{32}{10}$

(i) $9\frac{1}{5} = - \times \frac{2}{2} = -$

(j) $3\frac{2}{3} = - \times \frac{7}{7} = -$

(k) $7\frac{3}{4} = - \times - = \frac{186}{24}$

(l) $6\frac{2}{3} = - \times \frac{9}{9} = -$

(m) $6\frac{3}{7} = - \times \frac{2}{2} = -$

(n) $6\frac{1}{4} = - \times - = \frac{150}{24}$

(o) $2\frac{7}{9} = - \times \frac{9}{9} = -$

SIMPLIFY FRACTIONS

GCF of 28 and 32 = 4

$$\frac{28}{32} = \frac{y}{8} \quad \frac{28}{32} \div \frac{4}{4} = \frac{7}{8} \quad \text{therefore } y = 7$$

(2) Determine the value of the unknown

SECRET : Determine the GCF of the numerator and the denominator before you simplify.

(a) $\frac{8}{16} = \frac{x}{2}$ GCF = 8 $\frac{8}{16} \div \frac{8}{8} = \frac{1}{2}$ Therefore $x = 1$	(b) $\frac{9}{30} = \frac{x}{10}$ GCF = 3 $\frac{9}{30} \div \frac{3}{3} = \frac{3}{10}$ Therefore $x = 3$	(c) $\frac{16}{40} = \frac{x}{5}$ GCF = 8 $\frac{16}{40} \div \frac{8}{8} = \frac{2}{5}$ Therefore $x = 2$
(d) $\frac{16}{24} = \frac{x}{3}$ GCF = 8 $\frac{16}{24} \div \frac{8}{8} = \frac{2}{3}$ Therefore $x = 2$	(e) $\frac{30}{45} = \frac{x}{3}$ GCF = 15 $\frac{30}{45} \div \frac{15}{15} = \frac{2}{3}$ Therefore $x = 2$	(f) $\frac{48}{60} = \frac{x}{5}$ GCF = 12 $\frac{48}{60} \div \frac{12}{12} = \frac{4}{5}$ Therefore $x = 4$
(g) $\frac{16}{64} = \frac{x}{16}$ GCF = 16 $\frac{16}{64} \div \frac{16}{16} = \frac{1}{4}$ Therefore $x = 1$	(h) $\frac{45}{70} = \frac{x}{14}$ GCF = 5 $\frac{45}{70} \div \frac{5}{5} = \frac{9}{14}$ Therefore $x = 9$	(i) $\frac{54}{81} = \frac{x}{3}$ GCF = 27 $\frac{54}{81} \div \frac{27}{27} = \frac{2}{3}$ Therefore $x = 2$
(j) $\frac{64}{96} = \frac{x}{3}$ GCF = 32 $\frac{64}{96} \div \frac{32}{32} = \frac{2}{3}$ Therefore $x = 2$	(k) $\frac{60}{75} = \frac{x}{5}$ GCF = 15 $\frac{60}{75} \div \frac{15}{15} = \frac{4}{5}$ Therefore $x = 4$	(l) $\frac{80}{100} = \frac{x}{5}$ GCF = 20 $\frac{80}{100} \div \frac{20}{20} = \frac{4}{5}$ Therefore $x = 4$
(m) $\frac{34}{51} = \frac{x}{3}$ GCF = 17 $\frac{34}{51} \div \frac{17}{17} = \frac{2}{3}$ Therefore $x = 2$	(n) $\frac{35}{49} = \frac{x}{7}$ GCF = 7 $\frac{35}{49} \div \frac{7}{7} = \frac{5}{7}$ Therefore $x = 5$	(o) $\frac{36}{40} = \frac{x}{10}$ GCF = 4 $\frac{36}{40} \div \frac{4}{4} = \frac{9}{10}$ Therefore $x = 9$