Exercise-9A

1. Write 4 equivalent fractions of the following

a. $\frac{1}{3} = \frac{2}{6}\ \frac{3}{9}\ \frac{4}{12}\ \frac{10}{30}$ a. Multiply 2, 3, 4 and 10

b. $\frac{4}{5} = \frac{8}{10}\ \frac{12}{15}\ \frac{16}{20}\ \frac{20}{25}$ b. Multiply 2, 3, 4 and 5

c. $\frac{1}{6} = \frac{2}{12}\ \frac{4}{24}\ \frac{5}{30}\ \frac{6}{36}$ c. Multiply 2, 4, 5 and 6

d. $\frac{2}{11} = \frac{4}{22}\ \frac{10}{55}\ \frac{12}{66}\ \frac{16}{88}$ d. Multiply 2, 5, 6 and 8

e. $\frac{4}{15} = \frac{8}{30}\ \frac{24}{90}\ \frac{32}{120}\ \frac{44}{165}$ e. Multiply 2, 6, 8 and 11

2. Fill in the blanks.

(a) $\frac{1}{5} = \frac{4}{20}$ (b) $\frac{3}{4} = \frac{18}{24}$ (c) $\frac{2}{9} = \frac{18}{81}$ (d) $\frac{2}{14} = \frac{1}{7}$

(e) $\frac{6}{7} = \frac{24}{28}$ (f) $\frac{18}{54} = \frac{9}{27}$ (g) $\frac{20}{91} = \frac{60}{273}$ (h) $\frac{11}{13} = \frac{33}{39}$

(i) $\frac{35}{40} = \frac{7}{8}$ (j) $\frac{11}{15} = \frac{44}{60}$ (k) $\frac{35}{50} = \frac{7}{10}$ (l) $\frac{16}{64} = \frac{1}{4}$

(m) $\frac{7}{11} = \frac{42}{66}$ (n) $\frac{11}{12} = \frac{55}{60}$ (o) $\frac{14}{15} = \frac{98}{105}$

3) Reduce the following fractions to their lowest form:

(a) $\frac{68}{136} = \frac{1}{2}$ (b) $\frac{102}{119} = \frac{6}{7}$ (c) $\frac{153}{204} = \frac{3}{4}$ (d) $\frac{129}{249} = \frac{43}{83}$

(e) $\frac{154}{238} = \frac{11}{17}$ (f) $\frac{198}{297} = \frac{2}{3}$ (g) $\frac{117}{189} = \frac{13}{21}$ (h) $\frac{304}{368} = \frac{19}{23}$

(i) $\frac{115}{345} = \frac{1}{3}$ (j) $\frac{260}{720} = \frac{2}{9}$

4) Tick (✓) the fractions which are proper fractions:

(a) $\frac{13}{16}$ (b) $\frac{2}{7}$ (c) $\frac{17}{8}$ (d) $\frac{23}{25}$ (e) $\frac{38}{37}$ (f) $\frac{78}{50}$ (g) $\frac{25}{21}$

(h) $\frac{1}{7}$ (i) $\frac{45}{9}$ (j) $\frac{69}{65}$

5) Convert the following improper fraction into mixed

(a) $\frac{21}{6} = 3\frac{1}{2}$ (b) $\frac{113}{6} = 18\frac{5}{6}$ (c) $\frac{133}{6} = 20\frac{1}{2}$ (d) $\frac{98}{16} = 6\frac{1}{8}$

(e) $\frac{105}{29} = 7\frac{1}{2}$ (f) $\frac{223}{18} = 12\frac{7}{18}$ (g) $\frac{245}{25} = 21\frac{2}{5}$ (h) $6\frac{121}{24} = 25\frac{7}{24}$

(i) $\frac{305}{85} = 3\frac{10}{17}$ (j) $\frac{1148}{32} = 35\frac{7}{8}$

6) Convert the following mixed numbers into into improper fractions

a) $17\frac{3}{4} = \frac{59}{4}$ (b) $8\frac{6}{7} = \frac{62}{7}$ (c) $24\frac{5}{7} = \frac{173}{7}$ (d) $25\frac{4}{5} = \frac{129}{5}$

(e) $48\frac{5}{8} = \frac{389}{8}$ f) $17\frac{7}{9} = \frac{160}{9}$ (g) $28\frac{5}{6} = \frac{173}{6}$ (h) $21\frac{1}{8} = \frac{569}{8}$

i) $100\frac{3}{4} = \frac{403}{4}$ (j) $33\frac{2}{3} = \frac{101}{3}$

7) Write 5 improper fractions with 12 as the denominator.

Ans- $\frac{15}{12}, \frac{17}{12}, \frac{19}{12}, \frac{29}{12}, \frac{31}{12}$

8) Write 5 fractions which are equal to 1.

$\frac{2}{2}, \frac{5}{5}, \frac{8}{8}, \frac{70}{70}, \frac{50}{50}$

9) Fill in the blanks using > or < to make correct statements:

(a) $\frac{5}{24} \square \frac{5}{8}$ (b) $\frac{11}{16} \square \frac{11}{12}$ (c) $\frac{15}{19} \square \frac{15}{23}$ (d) $\frac{33}{40} \square \frac{27}{40}$

(e) $\frac{35}{10} \square \frac{49}{8}$ (f) $\frac{387}{85} \square \frac{37}{90}$ (g) $\frac{67}{19} \square \frac{73}{74}$ (h) $\frac{33}{34} \square \frac{27}{34}$

10) Which is the greater of the given fraction in each case? Write your answer using the sign '>' or '<'.

(a) $\frac{3}{4} \square \frac{6}{7}$ (b) $\frac{8}{9} \square \frac{5}{6}$ (c) $\frac{3}{20} \square \frac{5}{8}$ (d) $\frac{11}{12} \square \frac{8}{9}$

(e) $6\frac{6}{7} \square \frac{49}{8}$ (f) $15\frac{2}{7} \square \frac{41}{8}$ (g) $1\frac{11}{12} \square 1\frac{22}{15}$ (h) $16\frac{3}{5} \square 16\frac{27}{7}$

11) Arrange the following fractions in ascending order (use the sign <)

(a) $\frac{11}{25}, \frac{11}{17}, \frac{11}{15}$ (b) $\frac{8}{9}, \frac{8}{15}, \frac{8}{11}$ (c) $\frac{8}{17}, \frac{16}{17}, \frac{15}{17}$ (d) $\frac{3}{4}, \frac{5}{16}, \frac{7}{18}$

Ans (a) $\frac{11}{25} < \frac{11}{17} < \frac{11}{15}$ (b) $\frac{8}{15} < \frac{8}{11} < \frac{8}{9}$ (c) $\frac{8}{17} < \frac{15}{17} < \frac{16}{17}$ (d) $\frac{7}{18}, \frac{3}{4} < \frac{5}{16}$

(e) $\frac{8}{9}, \frac{7}{9}, \frac{3}{9}$ (f) $\frac{7}{12}, \frac{5}{6}, \frac{2}{3}$ (g) $\frac{7}{10}, \frac{2}{3}, \frac{11}{21}$ (h) $\frac{11}{21}, \frac{5}{7}, \frac{1}{2}$

Ans-e) $\frac{7}{9} < \frac{3}{3} < \frac{8}{9}$ (f) $\frac{7}{12} < \frac{2}{3} < \frac{5}{6}$

g) $\frac{11}{21} < \frac{7}{10} < \frac{2}{3}$ (h) $\frac{11}{12} < \frac{5}{7} < \frac{1}{2}$

12) Arrange the following fractions in descending order (use the sign >)

(a) $\frac{1}{4}, \frac{7}{8}, \frac{5}{12}$ (b) $\frac{5}{8}, \frac{13}{16}, \frac{3}{4}$ (c) $\frac{5}{8}, \frac{3}{4}, \frac{5}{24}$

(d) $\frac{3}{4}, \frac{5}{6}, \frac{7}{18}$ (e) $\frac{8}{9}, \frac{7}{9}, \frac{2}{3}$ (f) $\frac{35}{27}, \frac{8}{9}, \frac{15}{18}$

(g) $\frac{11}{20}, \frac{21}{5}, \frac{17}{40}$ (h) $\frac{11}{17}, \frac{1}{4}, \frac{1}{2}$

Ans-a) $\frac{7}{8} > \frac{5}{12} > \frac{1}{4}$ (b) $\frac{3}{4} > \frac{5}{8} > \frac{9}{16}$

(c) $\frac{3}{4} > \frac{5}{8} > \frac{5}{24}$ (d) $\frac{5}{6} > \frac{3}{4} > \frac{7}{18}$

(e) $\frac{8}{9} > \frac{5}{12} > \frac{3}{8}$ (f) $\frac{35}{27} > \frac{8}{9} > \frac{15}{18}$

(g) $\frac{21}{5} > \frac{11}{20} > \frac{17}{40}$ (h) $\frac{1}{2} > \frac{1}{4} > \frac{11}{17}$