

**Factors and fractions
WORKSHEET#1**

1.  Answer the questions.

I Which fraction below is equal to $\frac{1}{3}$?

- a) $\frac{5}{9}$
- b) $\frac{6}{9}$
- c) $\frac{2}{6}$
- d) $\frac{3}{9}$

III Which fraction below is equal to $\frac{4}{3}$?


- a) $\frac{20}{15}$
- b) $\frac{3}{4}$
- c) $\frac{8}{9}$
- d) $\frac{16}{12}$

II Which fraction below is not equal to $\frac{2}{7}$?

- a) $\frac{4}{14}$
- b) $\frac{8}{21}$
- c) $\frac{6}{21}$
- d) $\frac{12}{42}$

IV Which fraction below is not equal to $\frac{5}{2}$?

- a) $\frac{15}{6}$
- b) $\frac{45}{18}$
- c) $\frac{35}{16}$
- d) $\frac{25}{10}$

2.  Simplify the following fractions with:

- a) 2
- b) 3
- c) 6

$$\frac{6}{12}$$

$$\frac{18}{42}$$

$$\frac{24}{36}$$

$$\frac{54}{30}$$

$$\frac{144}{162}$$

$$\frac{96}{66}$$

$$\frac{48}{84}$$

$$\frac{72}{108}$$

$$\frac{126}{156}$$

3.  Simplify the fractions.

a) $\frac{8}{32}$

e) $\frac{21}{14}$

i) $\frac{27}{18}$

b) $\frac{15}{105}$

f) $\frac{34}{16}$

j) $\frac{8}{12}$

c) $\frac{49}{35}$

g) $\frac{6}{15}$

d) $\frac{33}{55}$

h) $\frac{28}{24}$

1.

I c and d

II b

III a and d

IV c

2.

a)

$$\frac{6}{12} = \frac{3}{6}; \frac{18}{42} = \frac{9}{21}; \frac{24}{36} = \frac{12}{18}; \frac{54}{30} = \frac{27}{15}; \frac{144}{162} = \frac{72}{81}; \frac{96}{66} = \frac{48}{33}$$

$$\frac{48}{84} = \frac{24}{42}; \frac{72}{108} = \frac{36}{54}; \frac{126}{156} = \frac{63}{78}$$

b)

$$\frac{6}{12} = \frac{2}{4}; \frac{18}{42} = \frac{6}{14}; \frac{24}{36} = \frac{8}{12}; \frac{54}{30} = \frac{18}{10}; \frac{144}{162} = \frac{48}{54}; \frac{96}{66} = \frac{32}{22}$$

$$\frac{48}{84} = \frac{16}{28}; \frac{72}{108} = \frac{24}{36}; \frac{126}{156} = \frac{42}{26}$$

c)

$$\frac{6}{12} = \frac{1}{2}; \frac{18}{42} = \frac{3}{7}; \frac{24}{36} = \frac{4}{6}; \frac{54}{30} = \frac{9}{5}; \frac{144}{162} = \frac{24}{27}; \frac{96}{66} = \frac{16}{11}$$

$$\frac{48}{84} = \frac{28}{14}; \frac{72}{108} = \frac{12}{18}; \frac{126}{156} = \frac{21}{26}$$

3.

a) $\frac{8}{32} = \frac{1}{4}$

e) $\frac{21}{14} = \frac{3}{2}$

i) $\frac{27}{18} = \frac{3}{2}$

b) $\frac{15}{105} = \frac{1}{7}$

f) $\frac{34}{16} = \frac{17}{8}$

j) $\frac{8}{12} = \frac{2}{3}$

c) $\frac{49}{35} = \frac{7}{5}$

g) $\frac{6}{15} = \frac{2}{5}$

d) $\frac{33}{55} = \frac{3}{5}$

h) $\frac{28}{24} = \frac{7}{6}$