

# Practice Proportion Problems

Name \_\_\_\_\_ Per \_\_\_\_\_

I) Solve the following Proportions using Cross Multiplication.

$$\frac{15}{p} = \frac{20}{8}$$

$$\frac{s}{10} = \frac{84}{20}$$

$$\frac{3}{y} = \frac{9}{12}$$

$$\frac{4}{12} = \frac{v}{3}$$

$$\frac{12}{28} = \frac{t}{21}$$

$$\frac{20}{12} = \frac{f}{9}$$

$$\frac{5}{9} = \frac{z}{27}$$

$$\frac{1}{4} = \frac{4}{q}$$

$$\frac{4}{h} = \frac{1}{2}$$

$$\frac{d}{6} = \frac{3}{2}$$

$$\frac{36}{w} = \frac{54}{15}$$

$$\frac{j}{56} = \frac{189}{49}$$

$$\frac{x}{9} = \frac{4}{x}$$

$$\frac{20}{a} = \frac{a}{5}$$

$$\frac{b}{4} = \frac{4}{b}$$

II) **Determine if the following proportions are valid.**

a)  $\frac{1}{2} = \frac{3}{4}$

b)  $\frac{33}{9} = \frac{22}{8}$

c)  $\frac{1}{5} = \frac{3}{15}$

d)  $\frac{12}{28} = \frac{6}{14}$

e)  $\frac{6}{9} = \frac{4}{8}$

f)  $\frac{2}{7} = \frac{6}{21}$

g)  $\frac{3x}{8} = \frac{6x}{16}$

h)  $\frac{xyz}{ty} = \frac{vxz}{vt}$

i)  $\frac{a}{b} = \frac{c}{d}$

III) Assume that the following is true:

$$\frac{a}{b} = \frac{c}{d}$$

**so  $ad = bc$**

Which of the following proportions is **also** true?

a)  $\frac{a}{c} = \frac{b}{d}$

b)  $\frac{b}{a} = \frac{c}{d}$

c)  $\frac{b}{a} = \frac{d}{c}$

d)  $\frac{a+b}{b} = \frac{c+b}{d}$

e)  $\frac{a+b}{b} = \frac{c+d}{d}$

f)  $\frac{a+x}{b} = \frac{c+x}{d}$