

Solutions to WS 16.1 – Proportions, #1-33 odd

Determine whether each proportion is true by cross-multiplication.

$$\textcircled{1} \quad \frac{15}{9} \stackrel{?}{\neq} \frac{35}{21}$$

$$315 = 315$$

Proportion

$$\textcircled{3} \quad \frac{56}{24} \stackrel{?}{\neq} \frac{49}{21}$$

$$1176 = 1176$$

Proportion

$$\textcircled{5} \quad \frac{18}{8} \stackrel{?}{\neq} \frac{108}{48}$$

$$864 = 864$$

Proportion

$$\textcircled{7} \quad \frac{3}{13} \stackrel{?}{\neq} \frac{10}{65}$$

$$130 \neq 195$$

Not a
Proportion

$$\textcircled{9} \quad \frac{8}{10} \stackrel{?}{\neq} \frac{24}{30}$$

$$240 = 240$$

Proportion

$$\textcircled{11} \quad \frac{24}{3} \stackrel{?}{\neq} \frac{72}{12}$$

$$216 \neq 288$$

Not a Proportion

Solve each proportion. Round to the nearest hundredth if necessary.

$$\textcircled{13} \quad \frac{27}{18} \neq \frac{42}{n}$$

$$\frac{27n}{27} = \frac{756}{27}$$

$n = 28$

$$\textcircled{15} \quad \frac{42}{28} \neq \frac{36}{n}$$

$$\frac{42n}{42} = \frac{1008}{42}$$

$n = 24$

$$\textcircled{17} \quad \frac{21.5}{x} \neq \frac{64.5}{18}$$

$$\frac{64.5x}{64.5} = \frac{387}{64.5}$$

$x = 6$

$$\textcircled{19} \quad \frac{30.8}{112} \neq \frac{y}{10}$$

$$\frac{112y}{112} = \frac{308}{112}$$

$y = 2.75$

$$\textcircled{21} \quad \frac{1.2}{1.5} \neq \frac{8}{m}$$

$$\frac{1.2m}{1.2} = \frac{12}{1.2}$$

$m = 10$

$$\textcircled{23} \quad \frac{7}{15} \neq \frac{f}{48}$$

$$\frac{15f}{15} = \frac{336}{15}$$

$f = 22.4$

$$\textcircled{25} \quad \frac{21}{36} \neq \frac{4.8}{d}$$

$$\frac{21d}{21} = \frac{172.8}{21}$$

$d \approx 8.23$

$$\textcircled{27} \quad \frac{p}{12} \neq \frac{21}{63}$$

$$\frac{63p}{63} = \frac{252}{63}$$

$p = 4$

$$\textcircled{29} \quad \frac{22}{36} = \frac{x}{198}$$

$$\frac{36x}{36} = \frac{4356}{36}$$

$$x = 121$$

$$\textcircled{31} \quad \frac{52}{13} = \frac{8}{q}$$

$$\frac{52q}{52} = \frac{104}{52}$$

$$q = 2$$

$$\textcircled{33} \quad \frac{74}{p} = \frac{92}{46}$$

$$\frac{92p}{92} = \frac{3404}{92}$$

$$p = 37$$