

Book

Ratio a to b

$$\frac{a}{b}$$

15) 4 yr to 6 yr

$$= \frac{4 \text{ yr}}{6 \text{ yr}}$$

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

28) 10.15 hr to 8.12 hr

$$= \frac{10.15 \text{ hr}}{8.12 \text{ hr}} \times \frac{100}{100}$$

$$= \frac{1015}{812} = \frac{5 \cdot 7 \cdot 29}{2 \cdot 2 \cdot 7 \cdot 29} = \frac{5}{4}$$

$$\begin{array}{c} 1015 \\ / \quad \backslash \\ 5 \quad 203 \\ \quad / \quad \backslash \\ \quad 7 \quad 29 \end{array}$$

$$\begin{array}{c} 812 \\ / \quad \backslash \\ 2 \quad 406 \\ \quad / \quad \backslash \\ \quad 2 \quad 203 \\ \quad \quad / \quad \backslash \\ \quad \quad 7 \quad 29 \end{array}$$

29) 8 gal to $9\frac{1}{3}$ gal

$$= \frac{8 \text{ gal}}{9\frac{1}{3} \text{ gal}}$$

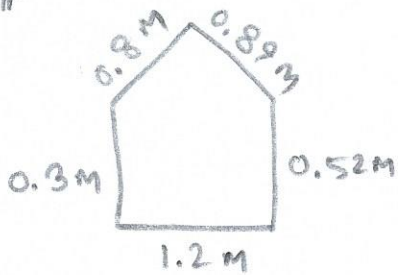
$$= \frac{8}{\frac{28}{3}}$$

$$= 8 \div \frac{28}{3}$$

$$= \frac{8}{1} \cdot \frac{3}{28}$$

$$= \frac{6}{7}$$

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$$\frac{0.3 \text{ m}}{1.2 \text{ m}}$$

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

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

if $\frac{a}{b} = \frac{c}{d}$, then $ad = bc$

$$21) \frac{5}{18} \stackrel{?}{=} \frac{4}{16}$$

$$5(16) \stackrel{?}{=} 4(18)$$

$$80 \stackrel{?}{=} 72$$

False

$$25) \frac{2\frac{1}{2}}{3\frac{2}{3}} \stackrel{?}{=} \frac{15}{22}$$

$$\frac{\frac{5}{2}}{\frac{11}{3}} \stackrel{?}{=} \frac{15}{22}$$

$$\frac{5}{2}(22) \stackrel{?}{=} \frac{11}{3}(15)$$

$$55 \stackrel{?}{=} 55$$

True

9) 4 is to 16 as 5 is to 20

$$\frac{4}{16} \stackrel{?}{=} \frac{5}{20}$$

$$\frac{1}{4} \stackrel{?}{=} \frac{1}{4}$$

True

13) The #'s 2 and 3 are proportional to the #'s 4 and 6

$$\frac{2}{3} = \frac{4}{6}$$

$$\# \quad \frac{p}{8} = \frac{30}{24}$$

$$\frac{24p}{24} = \frac{240}{24}$$

$$p = 10$$

$$\# \quad \frac{3}{40} = \frac{w}{10}$$

$$\frac{40w}{40} = \frac{30}{40}$$

$$w = \frac{30}{40}$$

$$w = \frac{3}{4}$$

$$55) \quad \frac{\frac{3}{8}}{6.75} = \frac{x}{72}$$

$$\frac{0.375}{6.75} = \frac{x}{72}$$

$$\frac{6.75x}{6.75} = \frac{72(0.375)}{6.75}$$

$$x = 4$$

$$48) \quad \frac{12}{p} = \frac{8}{9}$$

$$\frac{8p}{8} = \frac{108}{8}$$

$$p = \frac{27}{2}$$

$$52) \quad \frac{26}{30} = \frac{5\frac{1}{5}}{x}$$

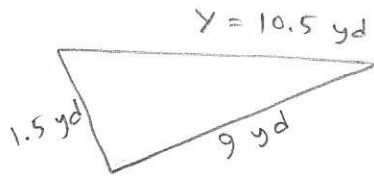
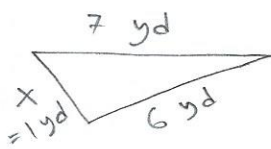
$$\frac{26}{30} = \frac{5.2}{x}$$

$$\frac{26x}{26} = \frac{30(5.2)}{26}$$

$$x = \frac{156}{26}$$

$$x = 6$$

45)



$$\frac{x}{1.5} = \frac{6}{9} = \frac{7}{y}$$

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

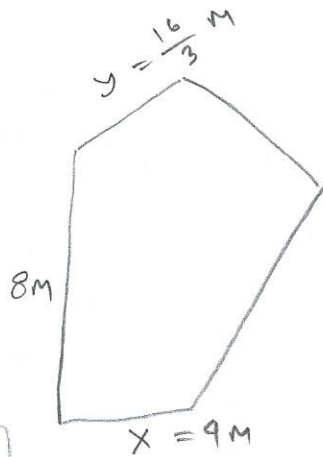
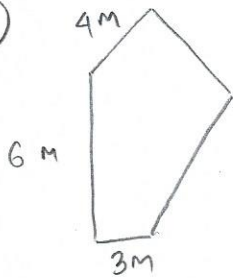
$$x = 1$$

$$\frac{6}{9} = \frac{7}{y}$$

$$6y = \frac{63}{6}$$

$$y = 10.5$$

54)



$$\frac{3}{x} = \frac{6}{8} = \frac{4}{y}$$

$$\frac{3}{x} = \frac{6}{8}$$

$$6x = 24$$

$$x = 4$$

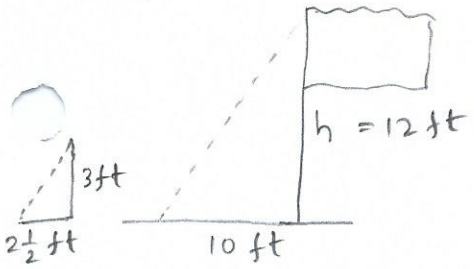
$$\frac{6}{8} = \frac{4}{y}$$

$$6y = 32$$

$$y = \frac{32}{6} = \frac{16}{3}$$



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$$\frac{2.5}{10} = \frac{3}{h}$$

$$2.5h = 30$$

$$h = \frac{30}{2.5}$$

$$h = 12 \text{ ft}$$