

Bell Ringer

Section 1.5

$$\frac{40}{3} = \$13.3 \qquad \frac{65}{5} = \$13.00$$

1. Your friend is selling 3 tickets to the next ice hockey game for \$40. You can buy 5 tickets online of \$65. Which source offers the best price? Explain.

online

2. What is 30 m converted to cm?

$$\frac{30m}{x \text{ cm}} = \frac{1m}{100cm} = 3,000 \text{ cm}$$

3. If a football field is 200 yd long, what is its length in miles?

$$\frac{200yd}{x \text{ m}} = \frac{1760y}{1m} \qquad \frac{200}{1760} \approx 0.114 \text{ miles}$$

4. A Queensland toad travels 15m/d. How far will it travel in 9 hours? Round your answer to the nearest hundredth.

$$\frac{15m}{h} \times 9 = 135 \text{ miles} \quad \left(\frac{15m}{1d} \right) \frac{1d}{24 \text{ hrs}} \qquad 0.625 \times 9 = 5.625$$

5. Simplify $-5(6x - 3) - 2(x - 1)$.

$$\underbrace{-30x + 15} \quad \underbrace{-2x + 2}$$

$$-32x + 17$$

Pull out hw 1.4 1-13, 19-24, 29-30

Questions before we correct?

batting
avg



$$a = \frac{h}{n}$$

hits
at bats

$$n \cdot a = \frac{h}{n} \cdot n$$

$$na = h$$

due tomorrow:

hw 1.5: 1-12, 17-22

$$\frac{18}{21} = .86 \quad \frac{9}{10}$$

$$\uparrow$$

$$300(.290) = h$$

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Density $D = \frac{m}{V}$ mass
volume

$$V \cdot 19.3 = \frac{96.5}{V}$$

$$\frac{19.3}{19.3} V = \frac{96.5}{19.3}$$

$$V = 5 \text{ cm}^3$$

$$A = \left(\frac{f+g}{2} \right) \frac{h}{1} \quad \cancel{2} \frac{fh+gh}{\cancel{2}} = A \cdot 2$$

$$h(f+g)$$

$$\cancel{fh} + gh = 2A$$

$$\frac{h(f+g)}{h} = \frac{2A}{h}$$

$$\frac{gh}{h} = \frac{2A - fh}{h}$$

$$\cancel{f} + g = \frac{2A}{h} - f$$

$$g = \frac{2A}{h} - f$$

Not in your book :)

**Problem 1****Solving Using the Multiplication Property**

What is the solution of the proportion $\frac{7}{8} = \frac{m}{12}$?

$$\left(\frac{21}{2}\right) \frac{42}{4} = \frac{84}{8} = m$$



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What is the solution of the proportion

$$\frac{x}{7} = \frac{4}{5} \cdot \frac{7}{1}$$

$$x = \frac{28}{5} = 5 \frac{3}{5} = 5.6$$

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Not in your book :)



Problem 2

Solving Using the Cross Products Property

What is the solution of the proportion $\frac{4}{3} = \frac{8}{x}$?

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

$$\frac{24}{4} = \frac{4x}{4}$$

$$8 \times 3 = \frac{24}{4}$$

$$x = 6$$

$$\frac{4x}{3} = 8.3$$

$$\frac{4x}{4} = \frac{24}{4}$$

$$x = 6$$



Got It?

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What is the solution of the proportion $\frac{y}{3} = \frac{3}{5}$?

$$\frac{y}{3} = \frac{3}{5}$$

$$3 \times 3 = 5 \cdot y$$

$$\frac{9}{5} = \frac{5y}{5}$$

$$y = \frac{9}{5}$$

- b. Reasoning** Would you rather use the Cross Products Property or the Multiplication Property of Equality to solve $\frac{3}{5} = \frac{13}{b}$? Explain.

 VIDEO!

Not in your book :)

**Problem 3****Solving a Multi-Step Proportion**

What is the solution of the proportion ~~$\frac{b-8}{5} = \frac{b+3}{4}$~~ ?

$$\begin{aligned} 5(b+3) &= 4(b-8) \\ 5b+15 &= 4b-32 \\ -4b-15 & \quad -4b-15 \end{aligned}$$

$$b = -47$$

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Got It?

What is the solution of the proportion $\frac{n}{5} = \frac{2n+4}{6}$?

$$6n = 5(2n + 4)$$

$$\begin{array}{r} 6n = 10n + 20 \\ -10n \quad -10n \end{array}$$

$$\begin{array}{r} -4n = 20 \\ \hline -4 \quad \quad 4 \end{array}$$

$$n = -5$$

Not in your book :)



Problem 4

Using a Proportion to Solve a Problem



Music A portable music player has 2 gigabytes of storage and can hold about 500 songs. A similar but larger media player has 80 gigabytes of storage. About how many songs can the larger media player hold?

$$\frac{g}{s}$$

$$\frac{2g}{500s} = \frac{80g}{X \text{ songs}}$$

$$\begin{aligned} 2X &= 40,000 \\ \frac{2X}{2} &= \frac{40,000}{2} \\ X &= 20,000 \end{aligned}$$



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An 8-oz can of orange juice contains about 97 mg of vitamin C. About how many milligrams of vitamin C are there in a 12-oz can of orange juice?

hw 1.6: 9-13 all, 17-21 (skip 19!), 23-33 odds
We'll do 17 together tomorrow

