

GMF 10

Lesson 1.1

Chapter 1

Unit Pricing and Currency Exchange



Sep 7-6:12 PM

**Simplifying fractions**

1 18  
2 9  
3 6

- You need to find the greatest common factor than divide your numerator and denominator by that number.

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

*(Handwritten: 18 ÷ 9 = 2, 27 ÷ 9 = 3)*

1 27  
3 9

- workbook pg. 11

$$1. \text{ a) } \frac{4}{16} = \frac{1}{4} \quad \text{b) } \frac{3}{12} = \frac{1}{4} \quad \text{c) } \frac{25}{75} = \frac{1}{3}$$

You try

$$\text{d) } \frac{15}{21} = \frac{5}{7} \quad \text{e) } \frac{8}{18} = \frac{4}{9} \quad \text{f) } \frac{45}{100} = \frac{9}{20}$$

$$\text{g) } \frac{20}{50} = \frac{2}{5} \quad \text{h) } \frac{3}{21} = \frac{1}{7} \quad \text{i) } \frac{7}{56} = \frac{1}{8}$$

Jan 18-3:26 PM

## Finding an unknown by comparing fractions

$$\frac{x}{16} = \frac{5}{24}$$

$$\frac{3x}{48} = \frac{10}{48}$$

$$\frac{3x}{3} = \frac{10}{3}$$

$$x = \frac{10}{3}$$

Strategies:

1) common denominator

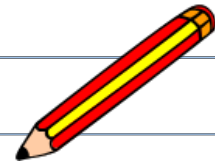
2) Cross multiply

$$\frac{24x}{24} = \frac{80}{24}$$

$$x = \frac{10}{3}$$

Jan 23-10:51 PM

# What is a ratio??



pg. 14

**Ratio** – a comparison between two numbers with the same units

**Example** – mixing paint – 3 parts blue to 1 part green

Blue: green = 3:1 = 6:2, etc

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**\*\*Ratios are often written as fractions. Leave as improper unless they can be simplified to a whole number.**

Feb 13-4:41 PM

16 MathWorks 10 Workbook

**BUILD YOUR SKILLS**

3. For a silk screening project, Jan mixes a shade of orange ink. She uses a ratio of red ink to yellow ink of 2:3 and yellow ink to white ink of 3:1.

a) How many mL of yellow ink would she need if she used 500 mL of white ink?

b) How many mL of red ink would she need if she used 750 mL of yellow ink?

*Handwritten notes:*

- At the top right, a blue arrow points from the ratio 3:1 down to the yellow ink to white ink ratio in the problem.
- For part (a), a red arrow points from the question to the calculation  $\frac{3}{1} = \frac{x}{500}$ . To the left, another red arrow points from the ratio 2:3 to the calculation  $\frac{1500}{500} = \frac{x}{500}$ .
- For part (b), a blue arrow points from the question to the calculation  $\frac{500}{750} = \frac{r}{750}$ . To the left, another blue arrow points from the ratio 2:3 to the calculation  $\frac{2 \times 250}{750} = \frac{r}{750}$ .
- At the bottom left, there is a note: "500 mL of red".

Jan 30-9:07 AM