

A4A5 Rates

Note Title

09/04/2015

Rates: comparing values on different items and they must include UNITS!

$$\$9.55/\text{hr} \rightarrow \frac{\$9.55}{1\text{hr}} \quad \frac{95\text{km}}{1\text{hr}}$$

⊛ Unit Rate: reducing your rate into a denominator of one
 ↑ aka unit price

$$\frac{\$5.99}{8\text{ oranges}} \div 8 = \frac{\$0.75}{1\text{ orange}} \text{ Unit Price}$$

to get deno of one, \div deno by itself

Examples:

① Find the missing values:

a) $\frac{\$2}{3\text{ popsicles}} = \frac{\$10}{15\text{ popsicles}}$

(Note: $2 \times 5 = 10$ and $3 \times 5 = 15$)

b) $\frac{192\text{km}}{\$64} = \frac{48\text{km}}{\$16}$

(Note: $192 \div 4 = 48$ and $64 \div 4 = 16$)

② Find the unit rate:

a) three pencils cost \$1.25

$$\frac{\$1.25}{3\text{ pencils}} = \frac{42¢ \text{ or } \$0.42}{1\text{ pencil}}$$

(Note: $1.25 \div 3 = 0.42$)

b) a tree planter can plant 642 trees in $1\frac{1}{4}$ hr.

hours:

$$\frac{642\text{ trees}}{1.25\text{ hrs}} = \frac{513\text{ trees}}{1\text{ hr}}$$

(Note: $642 \div 1.25 = 513$)

minutes:

$$\frac{642\text{ trees}}{75\text{ min}} = \frac{8\text{ trees}}{1\text{ min}}$$

(Note: $642 \div 75 = 8$)

③ Peanut butter comes in two sizes. Which is the better buy?

Jar A: 250mL \$4.49 Jar B: 590mL \$7.35

Find Unit Price of Both:

$$\text{Jar A: } \frac{\$4.49}{250\text{mL}} = \frac{\$0.01796}{1\text{mL}} \Rightarrow \frac{2¢}{1\text{mL}}$$

$$\text{Jar B: } \frac{\$7.35}{590\text{mL}} = \frac{\$0.01245}{1\text{mL}} \Rightarrow \frac{1¢}{1\text{mL}} \quad \star \text{ Better Buy } \star$$

Homework 2.2 Workbook and Textbook.