

# Rate and Ratio

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What is the Unit Rate?

a) 3 pencils cost \$1.20

$$\frac{\$1.20}{3 \text{ pencils}} = \frac{\$0.40}{1 \text{ pencil}} \quad \text{or} \quad \frac{\$0.40}{1 \text{ pencil}}$$

*(Note: A red arrow points from the denominator '3 pencils' to the denominator '1 pencil', with a red '÷3' written below it.)*

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

$$\frac{642 \text{ trees}}{1.25 \text{ hrs}} = \frac{513.6 \text{ trees}}{1 \text{ hour}}$$

*(Note: A red arrow points from the denominator '1.25 hrs' to the denominator '1 hour', with a red '1.25' written below it.)*

*(Note: To the right,  $1\frac{1}{4} = 1.25$  is written in green, with the fraction circled. Below it,  $1 \div 4 = .25$  is also written in green.)*

Find the missing value:

$$a) \frac{\$2}{3 \text{ mm}} = \frac{\$?}{15 \text{ mm}}$$

*(Note: A purple 'x5' is written above the '\$2', and a purple '\$10' is written to the right of the denominator '15 mm'.)*

$$a) \frac{4}{3 \text{ pop}} = \frac{4 \cdot 5}{15 \text{ pop}}$$

$$b) \frac{8 \div 4}{100} = \frac{2}{25}$$

$$c) \frac{2 \div 5}{5 \div 5} = \frac{0.4 \times 12}{1 \times 12} = \frac{4.8}{12}$$

★ found UNIT RATE first ★

What is the Better Buy?

a) Two jars of Peanut Butter are on sale. Jar #1 is 250mL for \$2.79 and Jar #2 is 580mL for \$9.79

Jar #1

$$\frac{\$2.79}{250 \text{ mL} \div 250} = \frac{\$0.01116}{1 \text{ mL}} = \frac{\$0.01}{1 \text{ mL}}$$

Better...

Buy

$$\text{Jar \#2} \quad \frac{\$9.79}{580\text{mL}} = \frac{\$0.0168}{1\text{mL}} = \frac{\$0.02}{1\text{mL}}$$