

Ratios (6-1)

<i>ratio</i>	Decode <i>r . a . t i o</i>
Definition <i>compares two quantities</i>	Example $\frac{\$20}{4 \text{ hrs.}}$

Ratios can be written three ways...

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

$$2:3$$

$$2 \text{ to } 3$$

Example 1: Recently, the Tigers have played 63 home games. Of those games, they have won 36 of them. Write each ratio.

I Do	You Do
Number of <u>wins</u> to number of home games	Number of wins to number of losses
$\frac{36}{63} \div 3 = \frac{12}{21} \div 3 = \frac{4}{7}$	$\frac{36}{27} \div 9 = \frac{4}{3}$

$$4:7$$

$$4 \text{ to } 7$$

<i>unit rate</i>	Decode Unit rate
Definition a ratio with a denominator of 1	Example $\frac{\$20}{4 \text{ hrs.}} \div 4 = \frac{\$5}{1 \text{ hr.}}$

Example 2: Find each unit rate.

I Do	You Do
$\frac{420 \text{ miles}}{6 \text{ hours}} \div 6 = \frac{70 \text{ miles}}{1 \text{ hr.}}$ 70 miles per hr.	$\frac{\$108}{3 \text{ hours}} \div 3 = \frac{\$36}{1 \text{ hr.}}$ \$36 per hr.

Example 4: You are driving 440 miles in 8 hours.

I Do	You Do
What is your unit rate? $\frac{440 \text{ miles}}{8 \text{ hrs.}} \div 8 = \frac{55 \text{ miles}}{1 \text{ hr.}}$	How far will you be able to drive in 15 hours? $55 \cdot 15 = \frac{825 \text{ miles}}{15 \text{ hrs.}}$