NAME _____ DATE _____ PERIOD _____

2-6 Notes

Ratios and Proportions

Example 1: Determine whether the ratios $\frac{24}{36}$ and $\frac{12}{18}$ are equivalent ratios. Write *yes* or *no*. Justify your answer.

Exercises

Determine whether each pair of ratios are equivalent ratios. Write *yes* or *no*.

1. $\frac{1}{2}, \frac{16}{32}$ **2.** $\frac{5}{8}, \frac{10}{15}$ **3.** $\frac{10}{20}, \frac{25}{49}$

Means-Extremes Property of Proportions	For any numbers *a*, *b*, *c*, and *d*, if $\frac{a}{b} = \frac{c}{d}$, then $ad = bc$.

Example: Solve $\frac{x}{5} = \frac{10}{13}$.

Solve each proportion. If necessary, round to the nearest hundredth.

1. $\frac{-3}{x} = \frac{2}{8}$ **2.** $\frac{4}{b-2} = \frac{4}{12}$ **3.** $\frac{1.5}{x} = \frac{12}{x}$

Use a proportion to solve each problem.

10. MODELS To make a model of the Guadeloupe River bed, Hermie used 1 inch of clay for 5 miles of the river's actual length. His model river was 50 inches long. How long is the Guadeloupe River?

11. EDUCATION Josh finished 24 math problems in one hour. At that rate, how many hours will it take him to complete 72 problems?