

NOTES: Applying Proportions

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| <p>Using proportions to solve real life situations</p> | <p>1) Must <u>label</u> your proportions when you set them up</p> <p>2) Place an "x" in the <u>unknown</u> part of the <u>ratio</u> and solve for it.</p> |
| <p>Example 1</p> | <p>To paint the walls of their house, the Wagners mix blue paint to white paint in the ratio of 2 : 3.5. How many gallons of white paint will they mix with 12 gallons of blue?</p> <p> $\frac{\text{blue}}{\text{white}} = \frac{2}{3.5} = \frac{12}{x}$ </p> <p>* cross multiply</p> <p> $\frac{2x}{2} = \frac{42}{2}$ </p> <p><i>x = 21 gallons of white paint</i></p> |
| <p>Example 2</p> | <p>At Allie's school, the ratio of books to students is 11 : 1. If there are 13,838 library books, how many students are there?</p> <p> $\frac{\text{books}}{\text{students}} = \frac{11}{1} = \frac{13838}{x}$ </p> <p> $\frac{11x}{11} = \frac{13838}{11}$ </p> <p><i>x = 1,258 students</i></p> |
| <p>Example 3</p> | <p>On Jose's block, there are 8 cars to every 5 houses. There are 32 cars on the block. How many houses are there?</p> <p> $\frac{\text{cars}}{\text{houses}} = \frac{8}{5} = \frac{32}{x}$ </p> <p> $\frac{8x}{8} = \frac{160}{8}$ </p> <p><i>x = 20 houses</i></p> |
| <p>Example 4</p> | <p>Jean can walk 1 km in 11 minutes. How far can she walk in 55 minutes?</p> <p> $\frac{\text{km}}{\text{min}} = \frac{1}{11} = \frac{x}{55}$ </p> <p> $\frac{11x}{11} = \frac{55}{11}$ </p> <p><i>x = 5 kilometers</i></p> |