


**MasterMath**

**Number Sense**

WRITING AND SOLVING PROPORTIONS




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**WRITING & SOLVING PROPORTIONS**

Your brother helped Dad last weekend. He worked 4 hours and Dad paid him \$12. Your Dad said you could help him this weekend, and he said he'd be fair and pay you an amount proportional to what your brother earned. You worked 5 hours. How much should your Dad pay you to be fair?

Writing and Solving Pro

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Your brother helped Dad last weekend. He worked 4 hours and Dad paid him \$12. Your Dad said you could help him this weekend, and he said he'd be fair and pay you an amount proportional to what your brother earned. You worked 5 hours. How much should your Dad pay you to be fair (P)?

$$\frac{\$12}{4\text{hrs}} = \frac{P}{5\text{hrs}}$$

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### WRITING & SOLVING PROPORTIONS

#### Cross Products

Your brother helped Dad last weekend. He worked 4 hours and Dad paid him \$12. Your Dad said you could help him this weekend, and he said he'd be fair and pay you an amount proportional to what your brother earned. You worked 5 hours. How much should your Dad pay you to be fair (P)?

$$\frac{\$12}{4 \text{ hrs}} = \frac{P}{5 \text{ hrs}}$$

$$\begin{aligned} 12 \times 5 &= 4 \times P \\ 60 &= 4 \times P \\ 60 \div 4 &= 4 \times P \div 4 \\ 15 &= P \end{aligned}$$

Writing and Solving P

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### WRITING & SOLVING PROPORTIONS

#### Algebra

Your brother helped Dad last weekend. He worked 4 hours and Dad paid him \$12. Your Dad said you could help him this weekend, and he said he'd be fair and pay you an amount proportional to what your brother earned. You worked 5 hours. How much should your Dad pay you to be fair (P)?

$$\begin{aligned} \frac{\$12}{4 \text{ hrs}} &= \frac{P}{5 \text{ hrs}} \\ \frac{\$12 \times 5 \text{ hrs}}{4 \text{ hrs}} &= \frac{P \times 5 \text{ hrs}}{5 \text{ hrs}} \\ \frac{\$60}{4} &= P \\ \$15 &= P \end{aligned}$$

Writing and Solving P

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### WRITING & SOLVING PROPORTIONS

#### Mental Math

Your brother helped Dad last weekend. He worked 4 hours and Dad paid him \$12. Your Dad said you could help him this weekend, and he said he'd be fair and pay you an amount proportional to what your brother earned. You worked 5 hours. How much should your Dad pay you to be fair (P)?

$$\begin{aligned} 4 \times ? &= 12 \\ 4 \times 3 &= 12 \end{aligned} \quad \left( \frac{12}{4} = \frac{P}{5} \right) \quad \begin{aligned} 5 \times 3 &= 15 \end{aligned}$$

Writing and Solving P

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### WRITING & SOLVING PROPORTIONS

#### Mental Math

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$$12 \times 1.25 = 15$$

$$\frac{12}{4} = \frac{P}{5}$$

$$4 \times ? = 5$$
$$4 \times 1.25 = 5$$

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#### You try it!

Your Aunt Rose's recipe for a loaf of banana bread calls for 2 bananas, 3 cups of flour, 1 cup of milk, a cup of walnuts and a pinch of yeast. You want to make 3 loafs of the bread. How many cups of flour do you need?



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$$\frac{3 \text{ cups}}{1 \text{ loaf}} = \frac{x}{3 \text{ loafs}}$$

$$9 = x$$

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**You try it!**

Joe's Trucking sent one truck west to a job. That truck drove 150 miles and used 12 gallons of gas. Joe's sent another truck east to a job that was 450 miles away. If both trucks get the same miles per gallon, how many gallons did the 2<sup>nd</sup> truck burn?

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**You try it!**

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$$3 \times 150 = 450$$

$$\frac{150}{12} = \frac{450}{B}$$

$$3 \times 12 = 36$$

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**You try it!**

Now, try it on your own. Go to [www.MasterMath.info](http://www.MasterMath.info) download Writing and Solving Proportions from the Worksheets Page, and test your skill.

Writing and Solving Pro

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