

Solve Proportions with Doubling or Halving

Mental Math Strategy

When to use this strategy: Use this strategy when one of the quantities* are doubled or halved. *The “quantities” might be the numerators or the denominators.

How to use this strategy: Notice which quantity is being doubled or halved and do the same thing to the other quantity. *Make sure that what you are doing makes sense.*

Examples: Solve $\frac{4}{11} = \frac{8}{r}$ ANS: $11 \cdot 2 = 22$ Solve $\frac{18}{26} = \frac{n}{13}$ ANS: $18 \div 2 = 9$ Solve $\frac{20}{u} = \frac{40}{88}$ ANS: $88 \div 2 = 44$

Use this (new) strategy on the following:	
1.) Solve $\frac{7}{12} = \frac{14}{x}$	2.) If Larry harvested 18,100 bushels in the first 120 acres, how many can he expect for 240 acres?
3.) Solve $\frac{9}{k} = \frac{18}{30}$	4.) The recipe calls for 18 oz of milk. Michelle wants to cut the recipe in half. How much milk does she need?

Use any strategy you know on the following:	
5.) Evaluate $x - y$ if $x = 955$ and $y = 631$	6.) Solve for x , $9 + x = 19 + 52$
7.) $14^2 =$	8.) Steve is putting liquid fertilizer on the golf course. He used 71 gallons on the first 8 acres. How many will he need for 16 acres?