

## Multiply by 4 by Doubling Twice

### Mental Math Strategy

**When to use this strategy:** Use this strategy when multiplying by 4.

**How to use this strategy:** Double the number twice.

*Examples:*  $71 \times 4 = 71 \times 2 \times 2 = 142 \times 2 = 284$        $43 \times 4 = 43 \times 2 \times 2 = 86 \times 2 = 172$        $115 \times 4 = 230 \times 2 = 460$

Use this (new) strategy on the following:	
1.) Solve for x. $\frac{14 \text{ oz}}{1,000 \text{ ft}^2} = \frac{x}{4,000 \text{ ft}^2}$	2.) “Four score and seven years ago...” (from Lincoln’s Gettysburg Address) – How many years is this? (Hint: a score is 20)
3.) $4(1.2 \times 10^5) =$	4.) H = Number of hot dogs sold P = Price of hot dogs (\$) $P = 4H$ If you buy 13 hot dogs, what would the total price be?

Use any strategy you know on the following:	
5.) A land owner wants to plant 12 trees on each of her 8 acres. How many trees are needed?	6.) There is a new Interactive Step Pad for Wii that you and your sibling what to purchase. It is \$56.00. If both you and your sibling have \$23.00, do you have enough to buy it?
7.) $(4 \times 10^2)(2.2 \times 10^5) =$	8.) Steve is putting weed killer on the golf course. He used 27 bags on the first 10 acres. He has 5 acres left. How many bags does he need for 5 acres?