

Use Doubling when 2 is a Factor

Mental Math Strategy

When to use this strategy: Use this strategy when multiplying an even number by a number ending in 5.

How to use this strategy: A number ending in 5, when doubled, ends in 0, making it *easier to work with*.

Therefore, break up the even number into $2 \times \text{something}$. Multiply by 2, then by 'something.' You can use this to impress your friends by multiplying big numbers in your head.

Examples: $14 \times 15 = 7 \times (2 \times 15) = 7 \times 30 = 210$

$$14 \times 25 = 7 \times (2 \times 25) = 7 \times 50 = 350$$

$$6 \times 450 = 3 \times (2 \times 450) = 3 \times 900 = 1800$$

Use this (new) strategy on the following:	
1.) Evaluate $(6 \times 10^4)(1.5 \times 10^2)$	2.) Find the area of the rectangle if base is 14" and height is 55".
3.) Simplify $\sqrt{6} \cdot \sqrt{35}$	4.) If the typical gas fill-up is \$35, how much for 8 fill-ups?

Use any strategy you know on the following:	
5.) Solve for x : $2x + 5 = 9$	6.) If 20 salesmen sell a total of \$60,800 worth of appliances, what is the average amount sold per salesman?
7.) Solve $12x + 1 = 46$	8.) Solve: $60 = 4w$