

Compatible Numbers for Multiplication

Mental Math Strategy

When to use this strategy: Use this strategy when you have many numbers to multiply and there are numbers that are compatible.

How to use this strategy: Look for factors that combine to 10 (or multiple of 10 or 100). Often this will be a 5 and an even number. Multiply these first, then finish the other multiplications.

Examples: $3 \times 4 \times 5 = (4 \times 5) \times 3 = 20 \times 3 = 60$

$$2 \times 76.3 \times 5 = 10 \times 76.3 = 763$$

$$(23x)(2.5x)(4x) = (23)(10)x^3 = 230x^3$$

Use this (new) strategy on the following:	
1.) Simplify $(7x)(4x)(5x)$	2.) If Bob take two breaks per day and spends \$7 on each break, how much does he spend for a 5-day work week?
3.) Find the volume of a rectangular solid that is 6m \times 7m \times 5m.	4.) Each month, the janitor replaces an average of 4 paper towel rolls on 25 days. A paper towel roll costs \$2.95. Find the cost of paper towels for 25 days.

Use any strategy you know on the following:	
5.) If there are 52 white keys on a piano how many white keys are there on three pianos?	6.) As base for a sidewalk, Eric plans to have a .5" layer of sand. The sidewalk is 68" long and 20" wide. How much sand does Eric need?
7.) Simplify $931 - 520$	8.) Kylee has a goal of running 24 miles this week. She has run 3, 4, and 5 miles the first three days. How much does she need to run to reach her goal?