Compatible Numbers Strategy

Mental Math Strategy

***When** to use this strategy:* Use this strategy when you have many numbers to add, subtract, or multiply and there are numbers that are compatible.
***How** to use this strategy:* Look for pairs of numbers that are "compatible" and combine them. Often you are trying to get to 10 (or 100) because these are easy to add or multiply in your head. This strategy is using the commutative (to re-order) and associative (to group) properties. In the case of multiplications, look for 5 and 2 (or 5 and an even number) because these multiply to 10 (or a multiple of 10).

Examples: $25 + 8 + 6 + 12 + 5 = (25 + 5) + (8 + 12) + 6 = 30 + 20 + 6 = 56.$
$2 \times 8 \times 5 \times 7 = (2 \times 5) \times (8 \times 7) = 10 \times 56 = 560.$

Use this (new) strategy on the following:	
1.) Simplify: $3 \times 5 \times 6 \times 2 =$	2.) Find the perimeter
3.) Find the volume of the rectangular solid if length is 25 m, width is 14 m, and height is 4 m.	4.) At the Burger Barn you get a hamburger for $2.55, fries for $1.13, and a drink for $0.45 What is the total bill?

Use any strategy you know on the following:	
5.) $780 + (-150) =$	6.) Bowling costs $2.15 per person per game. What is the total cost if 5 friends each bowl 2 games?
7.) Four children share equally in an inheritance of $100,400. How much does each child get?	8.) Find the total amount withdrawn if you withdraw the following amounts from the bank: $125, $470, $75, and $10.