Some people (not Herbie) can compute mentally better than others. (That means they can do calculations in their head). Usually it is because they understand the distributive law. (That means that they do-it-to-both). You too can compute mentally! Do-it-to-both!



Examples:

$3 \times 17 = 3 \times (10+7) = (3\times10)+(3\times7) = 30 + 21 = 51$

$3 \times 17 = 3 \times (20-3) = (3\times20) - (3\times3) = 60 - 9 = 51$

$75 \div 5 = (50+25) \div 5 = (50\div5) + (25\div5) = 10 + 5 = 15$

Your turn to do-it. Head problems practice exercises. Write only the answers.

$6 \times 40 =$ _____
$7 \times 51 =$ _____
$2 \times 84 =$ _____
$4 \times 28 =$ _____
$5 \times 39 =$ _____
$3 \times 95 =$ _____
$7 \times 409 =$ _____
$8 \times 62 =$ _____
$4 \times 106 =$ _____
$5 \times 207 =$ _____
$8 \times 510 =$ _____
$9 \times 73 =$ _____
$6 \times 308 =$ _____

$96 \div 2 =$ _____
$99 \div 9 =$ _____
$96 \div 8 =$ _____
$98 \div 7 =$ _____
$96 \div 6 =$ _____
$95 \div 5 =$ _____
$96 \div 4 =$ _____
$96 \div 3 =$ _____
$100 \div 8 =$ _____
$100 \div 7 =$ _____
$100 \div 6 =$ _____
$100 \div 3 =$ _____

The distributive laws

$(\square + \triangle) \times \bigcirc = (\square \times \bigcirc) + (\triangle \times \bigcirc)$

$(\square + \triangle) \times \square = (\square \times \square) + (\triangle \times \square)$

$(a+b) \times c = (a \times c) + (b \times c)$

$(a+b) \times a = (a \times a) + (b \times a)$

$(a+b) \times b = (a \times b) + (b \times b)$