# Mental Math

Use the properties of operations and mental strategies to compute.

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**Commutative Property:** The order in which numbers are added or multiplied does not affect the sum or product.

**Associative Property:** The way in which numbers are grouped to be added or multiplied does not affect the sum or product.

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| **Break apart the numbers:** | **Look for multiples of 10 or 100.** |
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| Add the tens, add the ones, then add the sums together. | Multiply numbers having a product of 10 or 100 first. Then multiply the other number. |

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Break apart:
$$47 + 83$$
$$(40 + 7) + (80 + 3)$$
$$(40 + 80) + (7 + 3)$$
$$120 + 10$$
$$130$$

Multiples:
$$20 \times 6 \times 5$$
$$(20 \times 5) \times 6$$
$$100 \times 6$$
$$600$$

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**Use compensation.**
Add to make a round number, then subtract that number from the sum.

$$537 + 295$$
$$(295 + ⑤ = 300)$$
$$537 + 300 = 837$$
$$837 - ⑤ = 832$$

Be sure to add and subtract the same number

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Compute mentally.

**1.** $64 + 86 =$ _____

**2.** $6 \times 40 \times 5 =$ _____

**3.** $2 \times 8 \times 50 =$ _____

**4.** $65 - 22 =$ _____

**5.** $94 + 53 =$ _____

**6.** $7 + 34 + 16 =$ _____

**7.** $125 + 14 + 75 =$ _____

**8.** $4 \times 9 \times 25 =$ _____

**9.** $579 - 295 =$ _____

**10.** $380 + 20 + 105 =$ _____

**11.** $7 \times 25 \times 4 =$ _____

**12.** $801 - 187 =$ _____

**13. Strategy Practice** Explain the steps you can use to find $7 \times 2 \times 50$ mentally.

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