The Distributive Property

You can use the distributive property to multiply mentally.

Example A. Evaluate 7×53.

Break 53 apart into $50 + 3$.

Then distribute the 7 to each part.

Multiply.

Add the products.

7×53

$7 \times (50 + 3)$

$(7 \times 50) + (7 \times 3)$

$350 + 21$

371

Example B. Evaluate $5(42) - 5(2)$. Remember $5(42)$ means 5×42.

Use the distributive property in reverse.

Join 42 and 2 using the minus sign.

Subtract.

Multiply the difference by 5.

$5(42) - 5(2)$

$5(42 - 2)$

5×40

200

Find each missing number.

1. $8 \times (30 + 2) = (8 \times$ _____$) + (8 \times 2)$ **2.** $(6 \times$_____$) - (6 \times 7) = 6 \times (37 - 7)$

3. $8(28) = 8(20) + 8 ($_____$)$ **4.** $3(22) + 3(4) = 3($_____$) + 3(6)$

Use the distributive property and mental math to evaluate.

5. $6(24)$ _____

6. $4(13) - 4(3)$ _____

7. $7(24 + 6)$ _____

8. $2(72)$ _____

9. $9(12) + 9(3)$_____

10. $5(24 - 3)$ _____

11. Number Sense What are two other ways to write $9(46)$?

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