Evaluate using the distributive property. Show your work and all steps.

Example: $5(4 + 2) = 5·4 + 5·2 = 20 + 10 = 30$

1) $2(5 + 4)$

2) $(3 - 1)4$

3) $5(20 + 2)$

4) $-5(10 + 3)$

5) $(10 - 2)(-3)$

6) $5(2 + 4 + 6)$

Use the distributive property in reverse. Write the following expressions using the distributive property. Then evaluate if possible.

Example: $5 · 3 + 5 · 8 = 5(3 + 8) = 15 + 40 = 55$

7) $10 · 12 + 10 · 5$

8) $2 · 9 + 3 · 9$

9) $x · 2 + x · 3$

Use the distributive property to evaluate.   Show your work.

Examples: $2(102) = 2(100 + 2) = 2 · 100 + 2 · 2 = 200 + 4 = 204$

$2(98) = 2(100 - 2) = 2 · 100 - 2 · 2 = 200 - 4 = 196$

10) $20(103)$

11) $5(22)$

12) $5(18)$

13) $20(97)$

14) $4(397)$

15) $5(1020)$

Answer Key

1) $2(5) + 2(4) = 18$
2) $3(4) - 1(4) = 8$
3) $5(20) + 5(2) = 110$
4) $5(-10) + -5(3) = -65$
5) $10(-3) - 2(-3) = -24$
6) $5(2) + 5(4) + 5(6) = 60$
7) $10(12 + 5)$
8) $(2 + 3)9$
9) $x(2 + 3)$
10) $20(100) + 20(3) = 2060$
11) $5(20) + 5(2) = 110$
12) $5(20) - 5(2) = 90$
13) $20(100) - 20(3) = 1940$
14) $4(400) - 4(3) = 1588$
15) $5(1000) + 5(20) = 5100$