Basic Expand Practice #3

Expand

1. $5(x + 4)$
2. $2(x - 1)$
3. $2y(3 + y)$
4. $3(y + 5)$
5. $x(y + 2)$
6. $5(x + 5)$
7. $2(x - 5)$
8. $x(x^2 + 4)$
9. $-5(g - 1)$
10. $6x(x + 4)$
11. $\frac{1}{2}(2x + 4)$
12. $-x(1 + x)$
13. $-6(x + 2)$
14. $-4(g - 1)$
15. $y(y + x)$
16. $-3(x - 3)$
17. $5(y - 2)$
18. $-(y - 3)$
19. $x^2(x - 2)$
20. $3x^2(x - 5)$

Expand and Simplify

21. $5(x + 5) - 2(x - 4)$
22. $3(x - 5) - x(x + 1)$
23. $5(y - 3) + 2(y - 2)$
24. $y(y + 2) - 6(y + 3)$
25. $4(4 + x) - 2(x + 4)$
26. $x(x + 1) + 2(5 + x)$
27. $5(k + 1) + 4(5 + k)$
28. $2(x + 3) - 3(x - 2)$
29. $2(x - 1) - 6(x + 5)$
30. $3(x + 2) - 4(x - 2)$

Answers: Basic Expand Practice #3

Expand

1. $5(x + 4) = 5x + 20$
2. $2(x - 1) = 2x - 2$ or $2x + {}^{-}2$
3. $2y(3 + y) = 6y + 2y^2$
4. $3(y + 5) = 3y + 15$
5. $x(y + 2) = xy + 2x$
6. $5(x + 5) = 5x + 25$
7. $2(x - 5) = 2x - 10$ or $2x + {}^{-}10$
8. $x(x^2 + 4) = x^3 + 4x$
9. ${}^{-}5(g - 1) = {}^{-}5g + 5$
10. $6x(x + 4) = 6x^2 + 24x$
11. $\frac{1}{2}(2x + 4) = x + 2$
12. ${}^{-}x(1 + x) = {}^{-}x - x^2$ or ${}^{-}x + {}^{-}x^2$
13. ${}^{-}6(x + 2) = {}^{-}6x - 12$ or ${}^{-}6x + {}^{-}12$
14. ${}^{-}4(g - 1) = {}^{-}4g + 4$
15. $y(y + x) = y^2 + xy$ or $y^2 + yx$
16. ${}^{-}3(x - 3) = {}^{-}3x + 9$
17. $5(y - 2) = 5y - 10$ or $5y + {}^{-}10$
18. $-(y - 3) = {}^{-}y + 3$
19. $x^2(x - 2) = x^3 - 2x^2$ or $x^3 + {}^{-}2x^2$
20. $3x^2(x - 5) = 3x^3 - 15x^2$

Expand and Simplify (answers can be in any order but it is usual to put higher powers first)

21. $5(x + 5) - 2(x - 4) = 5x + 25 - 2x + 8 = 3x + 33$
22. $3(x - 5) - x(x + 1) = 3x - 15 - x^2 - 1x = {}^{-}x^2 + 2x - 15$
23. $5(y - 3) + 2(y - 2) = 5y - 15 + 2y - 4 = 7y - 19$
24. $y(y + 2) - 6(y + 3) = y^2 + 2y - 6y - 18 = y^2 - 4y - 18$
25. $4(4 + x) - 2(x + 4) = 16 + 4x - 2x - 8 = 2x + 8$
26. $x(x + 1) + 2(5 + x) = x^2 + 1x + 10 + 2x = x^2 + 3x + 10$
27. $5(k + 1) + 4(5 + k) = 5k + 5 + 20 + 4k = 9k + 25$
28. $2(x + 3) - 3(x - 2) = 2x + 6 - 3x + 6 = {}^{-}x + 12$ (accept ${}^{-}1x + 12$)
29. $2(x - 1) - 6(x + 5) = 2x - 2 - 6x - 30 = {}^{-}4x - 32$
30. $3(x + 2) - 4(x - 2) = 3x + 6 - 4x + 8 = {}^{-}x + 14$ (accept ${}^{-}1x + 14$)