Basic Expand Practice #1

Expand

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

Expand and Simplify

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

Answers: Basic Expand Practice #1

Expand

1. $5(x + 2) = 5x + 10$
2. $4(x + 4) = 4x + 16$
3. $2(y + 4) = 2y + 8$
4. $x(x + 1) = x^2 + x$
5. $2(y + 5) = 2y + 10$
6. $x(x + 4) = x^2 + 4x$
7. $5(x + 1) = 5x + 5$
8. $5(k + 5) = 5k + 25$
9. $4(k + 2) = 4k + 8$
10. $k(k + 4) = k^2 + 4k$
11. $5(1 + y) = 5 + 5y$
12. $3(k – 3) = 3k – 9$ or $3k + ^-9$
13. $3(x + 1) = 3x + 3$
14. $x(4 + x) = 4x + x^2$ or $x^2 + 4x$
15. $4(x + 5) = 4x + 20$
16. $x(x – 4) = x^2 – 4x$ or $x^2 + ^-4x$
17. $5(k – 1) = 5k – 5$ or $5k + ^-5$
18. $6(2 + x) = 12 + 6x$
19. $k(k – 5) = k^2 – 5k$ or $k^2 + ^-5k$
20. $4(x + 2) = 4x + 8$

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

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