tip: $(ax + b)^3$

$\quad = a^3x^3 + 3a^2bx^2 + 3ab^2x + b^3$

(1) $3(4x + 9)^3$

$\quad = 3(64x^3 + 432x^2 + 972x + 729)$

$\quad = 192x^3 + 1296x^2 + 2916x + 2187$

(2) $-2(4x - 1)^3$

$\quad = -2(64x^3 - 48x^2 + 12x - 1)$

$\quad = -128x^3 + 96x^2 - 24x + 2$

(3) $-4(x - 3)^3$

$\quad = -4(x^3 - 9x^2 + 27x - 27)$

$\quad = -4x^3 + 36x^2 - 108x + 108$

(4) $-2(5x - 1)^3$

$\quad = -2(125x^3 - 75x^2 + 15x - 1)$

$\quad = -250x^3 + 150x^2 - 30x + 2$

(5) $-3(x + 2)^3$

$\quad = -3(x^3 + 6x^2 + 12x + 8)$

$\quad = -3x^3 - 18x^2 - 36x - 24$

(6) $2(x - 1)^3$

$\quad = 2(x^3 - 3x^2 + 3x - 1)$

$\quad = 2x^3 - 6x^2 + 6x - 2$

(7) $4(x + 5)^3$

$\quad = 4(x^3 + 15x^2 + 75x + 125)$

$\quad = 4x^3 + 60x^2 + 300x + 500$

(8) $2(4x - 7)^3$

$\quad = 2(64x^3 - 336x^2 + 588x - 343)$

$\quad = 128x^3 - 672x^2 + 1176x - 686$

(9) $4(x - 2)^3$

$\quad = 4(x^3 - 6x^2 + 12x - 8)$

$\quad = 4x^3 - 24x^2 + 48x - 32$

(10) $4(x + 2)^3$

$\quad = 4(x^3 + 6x^2 + 12x + 8)$

$\quad = 4x^3 + 24x^2 + 48x + 32$

(11) $(x + 5)^3$

$\quad = x^3 + 15x^2 + 75x + 125$

(12) $-4(4x - 9)^3$

$\quad = -4(64x^3 - 432x^2 + 972x - 729)$

$\quad = -256x^3 + 1728x^2 - 3888x + 2916$

(13) $-4(2x + 5)^3$

$\quad = -4(8x^3 + 60x^2 + 150x + 125)$

$\quad = -32x^3 - 240x^2 - 600x - 500$

(14) $-(x + 9)^3$

$\quad = -(x^3 + 27x^2 + 243x + 729)$

$\quad = -x^3 - 27x^2 - 243x - 729$

(15) $4(x + 7)^3$

$\quad = 4(x^3 + 21x^2 + 147x + 343)$

$\quad = 4x^3 + 84x^2 + 588x + 1372$

(16) $3(x - 2)^3$

$\quad = 3(x^3 - 6x^2 + 12x - 8)$

$\quad = 3x^3 - 18x^2 + 36x - 24$

(17) $-(3x - 1)^3$

$\quad = -(27x^3 - 27x^2 + 9x - 1)$

$\quad = -27x^3 + 27x^2 - 9x + 1$

(18) $-4(5x - 6)^3$

$\quad = -4(125x^3 - 450x^2 + 540x - 216)$

$\quad = -500x^3 + 1800x^2 - 2160x + 864$

(19) $(x + 5)^3$

$\quad = x^3 + 15x^2 + 75x + 125$

(20) $-3(2x - 5)^3$

$\quad = -3(8x^3 - 60x^2 + 150x - 125)$

$\quad = -24x^3 + 180x^2 - 450x + 375$