







- 2.  $\frac{1}{x^2} = x^{-2}$   $\frac{d}{dx} x^{-2} = -2x^{-3} = -\frac{2}{x^3}$   $\frac{d}{dx} \frac{1}{x^2} = -\frac{2}{x^3}$
- 3.  $\frac{1}{x^3} = x^{-3}$   $\frac{d}{dx} x^{-3} = -3x^{-4} = -\frac{3}{x^4}$   $\frac{d}{dx} \frac{1}{x^3} = -\frac{3}{x^4}$
- 4.  $\frac{1}{x^4} = x^{-4}$   $\frac{d}{dx} x^{-4} = -4x^{-5} = -\frac{4}{x^5}$   $\frac{d}{dx} \frac{1}{x^4} = -\frac{4}{x^5}$
- 5.  $\frac{1}{x^5} = x^{-5}$   $\frac{d}{dx} x^{-5} = -5x^{-6} = -\frac{5}{x^6}$   $\frac{d}{dx} \frac{1}{x^5} = -\frac{5}{x^6}$

4.  $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

5. (a)  $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

(b)  $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

(a)  $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

(b)  $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

6. (a)  $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

(b)  $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

(a)  $\frac{d}{dx} x^9 = 9x^8$   $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

(b)  $\frac{d}{dx} x^{10} = 10x^9$   $\frac{d}{dx} x^9 = 9x^8$   $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$

7.  $\frac{d}{dx} x^{11} = 11x^{10}$   $\frac{d}{dx} x^{10} = 10x^9$   $\frac{d}{dx} x^9 = 9x^8$   $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^3 = 3x^2$   $\frac{d}{dx} x^2 = 2x$   $\frac{d}{dx} x = 1$   $\frac{d}{dx} 1 = 0$







