

7. $\frac{1}{x^2} = x^{-2}$ $\frac{d}{dx} x^{-2} = -2x^{-3} = -\frac{2}{x^3}$ $\frac{d}{dx} \frac{1}{x^2} = -\frac{2}{x^3}$

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

(b) $\frac{d}{dx} x^{-1} = -x^{-2} = -\frac{1}{x^2}$ $\frac{d}{dx} x^{-2} = -2x^{-3} = -\frac{2}{x^3}$ $\frac{d}{dx} x^{-3} = -3x^{-4} = -\frac{3}{x^4}$ $\frac{d}{dx} x^{-4} = -4x^{-5} = -\frac{4}{x^5}$ $\frac{d}{dx} x^{-5} = -5x^{-6} = -\frac{5}{x^6}$ $\frac{d}{dx} x^{-6} = -6x^{-7} = -\frac{6}{x^7}$ $\frac{d}{dx} x^{-7} = -7x^{-8} = -\frac{7}{x^8}$ $\frac{d}{dx} x^{-8} = -8x^{-9} = -\frac{8}{x^9}$ $\frac{d}{dx} x^{-9} = -9x^{-10} = -\frac{9}{x^{10}}$ $\frac{d}{dx} x^{-10} = -10x^{-11} = -\frac{10}{x^{11}}$

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

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

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

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

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

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

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

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

(4) 48 : 48

(5) 48 : 48

(6) 48 : 48

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(1) 48 : 48

(2) 48 : 48

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