







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.  $\frac{d}{dx} x^n = nx^{n-1}$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^9 = 9x^8$   $\frac{d}{dx} x^{10} = 10x^9$

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

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

(a)  $\frac{d}{dx} x^{15} = 15x^{14}$   $\frac{d}{dx} x^{16} = 16x^{15}$   $\frac{d}{dx} x^{17} = 17x^{16}$   $\frac{d}{dx} x^{18} = 18x^{17}$   $\frac{d}{dx} x^{19} = 19x^{18}$   $\frac{d}{dx} x^{20} = 20x^{19}$

(b)  $\frac{d}{dx} x^{-15} = -15x^{-16} = -\frac{15}{x^{16}}$   $\frac{d}{dx} x^{-16} = -16x^{-17} = -\frac{16}{x^{17}}$   $\frac{d}{dx} x^{-17} = -17x^{-18} = -\frac{17}{x^{18}}$   $\frac{d}{dx} x^{-18} = -18x^{-19} = -\frac{18}{x^{19}}$   $\frac{d}{dx} x^{-19} = -19x^{-20} = -\frac{19}{x^{20}}$   $\frac{d}{dx} x^{-20} = -20x^{-21} = -\frac{20}{x^{21}}$

6. (a)  $\frac{d}{dx} x^n = nx^{n-1}$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^9 = 9x^8$   $\frac{d}{dx} x^{10} = 10x^9$

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

(c)  $\frac{d}{dx} x^{15} = 15x^{14}$   $\frac{d}{dx} x^{16} = 16x^{15}$   $\frac{d}{dx} x^{17} = 17x^{16}$   $\frac{d}{dx} x^{18} = 18x^{17}$   $\frac{d}{dx} x^{19} = 19x^{18}$   $\frac{d}{dx} x^{20} = 20x^{19}$

(d)  $\frac{d}{dx} x^{-15} = -15x^{-16} = -\frac{15}{x^{16}}$   $\frac{d}{dx} x^{-16} = -16x^{-17} = -\frac{16}{x^{17}}$   $\frac{d}{dx} x^{-17} = -17x^{-18} = -\frac{17}{x^{18}}$   $\frac{d}{dx} x^{-18} = -18x^{-19} = -\frac{18}{x^{19}}$   $\frac{d}{dx} x^{-19} = -19x^{-20} = -\frac{19}{x^{20}}$   $\frac{d}{dx} x^{-20} = -20x^{-21} = -\frac{20}{x^{21}}$

7.  $\frac{d}{dx} x^n = nx^{n-1}$   $\frac{d}{dx} x^4 = 4x^3$   $\frac{d}{dx} x^5 = 5x^4$   $\frac{d}{dx} x^6 = 6x^5$   $\frac{d}{dx} x^7 = 7x^6$   $\frac{d}{dx} x^8 = 8x^7$   $\frac{d}{dx} x^9 = 9x^8$   $\frac{d}{dx} x^{10} = 10x^9$







کے لیے، آئیے اپنی باتیں اور اپنے خیالات کو سنا سنا کر دیکھیں اور سیکھیں۔



پہلی شیفٹ: 12:30 سے 1:00 بجے، 3:30 سے 4:00 بجے  
 دوسری شیفٹ: 11:00 سے 11:30 بجے، 3:30 سے 4:00 بجے  
 تیسری شیفٹ: 3:30 سے 4:00 بجے



7:00 سے 7:45 بجے