

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

تکلیفاتی که در کلاس:

1. $\frac{d}{dx} x^{-9} = -9x^{-10} = -\frac{9}{x^{10}}$
2. $\frac{d}{dx} x^{-8} = -8x^{-9} = -\frac{8}{x^9}$

تمرینات:

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

