

Supplementary problems: Sec. 4.1 # 9b, 9c, 9d, 11a, 11b, 12b, 12c, 12d

Compulsory problems:

(1) [10 pts.]

$$\lim_{x \rightarrow a} x^4 = a^4.$$

(2) [8 pts.]

$$\lim_{x \rightarrow 1} \frac{1}{x} = 1.$$

(3) [7 pts.]

$$\lim_{x \rightarrow 1} x^4 + \frac{1}{x} = 2.$$

(4) [5 pts.]

$$\lim_{x \rightarrow 0} \sqrt{|x|} = 0.$$

Your homework raw score is: $\frac{n}{2m} \cdot M + \left(1 - \frac{n}{2m}\right) \cdot N = N + \frac{n}{2m}(M - N)$. For this homework, $M = 30$, $m = 8$, N is the number of compulsory problems you get correct, and n is the number of supplementary problems you complete. It should be noted that for the supplementary problems I will be looking for **full completion**, but I won't take off points for mistakes.