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| 本章公式： 两个重要极限： [http://b58.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a2992680d66b006c8facd2988dc2b2eebf374f1196e8d0d664cd65f75ad7f2fd751d72d044c94f5822259e50eb225786293381ca11b90142d4b8ad1234c4414bfb98e87d3524&a=62&b=58](http://b58.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a2992680d66b006c8facd2988dc2b2eebf374f1196e8d0d664cd65f75ad7f2fd751d72d044c94f5822259e50eb225786293381ca11b90142d4b8ad1234c4414bfb98e87d3524%26a=62%26b=58) 常用的8个等价无穷小公式： 当x→0时， sinx~x tanx~x arcsinx~x arctanx~x 1-cosx~1/2\*（x^2） （e^x）-1~x ln(1+x)~x [(1+x)^1/n]-1~（1/n）\*x 二.导数与微分 熟悉函数的可导性与连续性的关系 求高阶导数会运用两边同取对数 隐函数的显化 会求由参数方程确定的函数的导数  [http://b57.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a2998e8ab3654337ce90e272b0fc160bacba5f250b8ff3e9749fadc0605ca3c60c8dd15b8b0a0deb9d6dd5bf97e410d7503db3e0216ab421877ef945d824743444877666ea37&a=57&b=57](http://b57.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a2998e8ab3654337ce90e272b0fc160bacba5f250b8ff3e9749fadc0605ca3c60c8dd15b8b0a0deb9d6dd5bf97e410d7503db3e0216ab421877ef945d824743444877666ea37%26a=57%26b=57)  [http://b61.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299c14c7b7c6bfa5cb0d9848bb08e1a84ccced7ce48cdef7f2e74b5a3692730e431d3f748ddf6738a57775f592ae7e67edb299873d0d595c8aaea8d8789feb7520c00c738a1&a=50&b=61](http://b61.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299c14c7b7c6bfa5cb0d9848bb08e1a84ccced7ce48cdef7f2e74b5a3692730e431d3f748ddf6738a57775f592ae7e67edb299873d0d595c8aaea8d8789feb7520c00c738a1%26a=50%26b=61)  三.微分中值定理与导数的应用： [http://b62.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299fd89a714b83a7f97b1381fe8a3896bd8c2a4e64794816a1a588c3eb68d52be7854b16d9cb93bed9390c0a4a4aa9da0c8b017d90281106699560bfdc49101eb64aa64af14&a=62&b=62](http://b62.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299fd89a714b83a7f97b1381fe8a3896bd8c2a4e64794816a1a588c3eb68d52be7854b16d9cb93bed9390c0a4a4aa9da0c8b017d90281106699560bfdc49101eb64aa64af14%26a=62%26b=62) 洛必达法则： 利用洛必达法则求未定式的极限是微分学中的重点之一，在解题中应注意： ① 在着手求极限以前，首先要检查是否满足或 型，否则滥用洛必达法则会出错.当不存在时（不包括∞情形），就不能用洛必达法则，这时称洛必达法则失效，应从另外途径求极限 . ② 洛必达法则可连续多次使用，直到求出极限为止. ③ 洛必达法则是求未定式极限的有效工具，但是如果仅用洛必达法则，往往计算会十分繁琐，因此一定要与其他方法相结合，比如及时将非零极限的乘积因子分离出来以简化计算、乘积因子用等价量替换等等. 曲线的凹凸性与拐点： 注意：首先看定义域然后判断函数的单调区间 求极值和最值 利用公式判断在指定区间内的凹凸性或者用函数的二阶导数判断（注意二阶导数的符号） 四.不定积分：（要求：将例题重新做一遍） 对原函数的理解  **原函数与不定积分 1** 基本积分表基本积分表（共24个基本积分公式） 不定积分的性质  [http://b61.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a2998f7abd011bbbcc2199183f3786021c1796704e3cbbe02ac124aa6f0e8d58f131f501a2bd6909467241cef6be4069a21f0edc01e1a97ef818835e32944012cde429ca98ec&a=58&b=61](http://b61.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a2998f7abd011bbbcc2199183f3786021c1796704e3cbbe02ac124aa6f0e8d58f131f501a2bd6909467241cef6be4069a21f0edc01e1a97ef818835e32944012cde429ca98ec%26a=58%26b=61) [http://b49.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299d73e2aaff96e05596b60627026e1b026f1e50b9008c060b361063bf54e9d29fbaf89b2d4e069d6ff2f4b661ab2661501d25bec3ea5600c66b600978af5b60b0883f07e51&a=57&b=49](http://b49.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299d73e2aaff96e05596b60627026e1b026f1e50b9008c060b361063bf54e9d29fbaf89b2d4e069d6ff2f4b661ab2661501d25bec3ea5600c66b600978af5b60b0883f07e51%26a=57%26b=49) 2 第一类换元法（凑微分法） **2 第二类换元法（三角代换 无理代换 倒代换）** 3 分部积分法 [http://b49.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299968436de8e907d93e786c634f31873df5f68991833905f129f464e02a96494c3e1c5fe5d2d35a4233f277ce933c483c19baf451b31f9c73ef5ace3c9b97f104ac89fbfc1&a=49&b=49](http://b49.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299968436de8e907d93e786c634f31873df5f68991833905f129f464e02a96494c3e1c5fe5d2d35a4233f277ce933c483c19baf451b31f9c73ef5ace3c9b97f104ac89fbfc1%26a=49%26b=49) [http://b49.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299b1539eaeaf7018ad48dca7b14b3d5978e8fb70d5cb692684988855b9fb4deb80e54e3f11c114e58990b2634e92c25885b77ec7130010987eb8b687e040c92cc5c72160da&a=62&b=49](http://b49.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299b1539eaeaf7018ad48dca7b14b3d5978e8fb70d5cb692684988855b9fb4deb80e54e3f11c114e58990b2634e92c25885b77ec7130010987eb8b687e040c92cc5c72160da%26a=62%26b=49) [http://b61.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299eb15266f93ab7f68e8b02e2195bf1c1bb3bd78c45017d49c9ab5368ca215565698e6981d60a87e4460b563c5c466a40f98a0da3de621788474a0a08312b53cf6570749df&a=58&b=61](http://b61.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a299eb15266f93ab7f68e8b02e2195bf1c1bb3bd78c45017d49c9ab5368ca215565698e6981d60a87e4460b563c5c466a40f98a0da3de621788474a0a08312b53cf6570749df%26a=58%26b=61) f(x)中含有 可考虑用代换[http://b62.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a29920cfd5ba2c2650c1168e307b12e85c8433a20bd3e119cc8d2b4dbb28e3b2e35be74f6676e6446459927bfe98b69a6896e264d4ff091e63bf19893f3e7a789b2653db1f5e&a=58&b=62](http://b62.photo.store.qq.com/http_imgload.cgi?/rurl4_b=8f7cfe83423c968e4cbc741280a2a29920cfd5ba2c2650c1168e307b12e85c8433a20bd3e119cc8d2b4dbb28e3b2e35be74f6676e6446459927bfe98b69a6896e264d4ff091e63bf19893f3e7a789b2653db1f5e%26a=58%26b=62) |