

# Limits and Continuity

## AP Calculus BC • Vocabulary

Write each word 3 times. 把每个单词抄写三遍。

| English                                                                                                        | 中文    | Write it 3 times (English) |
|----------------------------------------------------------------------------------------------------------------|-------|----------------------------|
|  change                       | 变化    | <hr/> <hr/> <hr/>          |
|  accumulation                 | 累积    | <hr/> <hr/> <hr/>          |
|  limit                        | 极限    | <hr/> <hr/> <hr/>          |
|  at a single instant          | 瞬间    | <hr/> <hr/> <hr/>          |
|  average rate of change       | 平均变化率 | <hr/> <hr/> <hr/>          |
|  interval                     | 区间    | <hr/> <hr/> <hr/>          |
|  instantaneous rate of change | 瞬时变化率 | <hr/> <hr/> <hr/>          |
|  approaches                 | 趋近    | <hr/> <hr/> <hr/>          |
|  derivative                 | 导数    | <hr/> <hr/> <hr/>          |
|  integral                   | 积分    | <hr/> <hr/> <hr/>          |
|  arbitrarily                | 任意地   | <hr/> <hr/> <hr/>          |
|  sufficiently               | 足够    | <hr/> <hr/> <hr/>          |
|  behavior                   | 行为    | <hr/> <hr/> <hr/>          |
|  graphically                | 用图象   | <hr/> <hr/> <hr/>          |
|  numerically                | 用数值   | <hr/> <hr/> <hr/>          |

| English                                                                                                 | 中文      | Write it 3 times (English) |       |       |
|---------------------------------------------------------------------------------------------------------|---------|----------------------------|-------|-------|
|  analytically          | 用解析式    | _____                      | _____ | _____ |
| $\leftarrow$ left-hand limit                                                                            | 左极限     | _____                      | _____ | _____ |
| $\rightarrow$ right-hand limit                                                                          | 右极限     | _____                      | _____ | _____ |
| $\langle \rangle$ one-sided limits                                                                      | 单侧极限    | _____                      | _____ | _____ |
|  open circle           | 空心圆     | _____                      | _____ | _____ |
|  hole                  | 空洞      | _____                      | _____ | _____ |
|  closed circle         | 实心圆     | _____                      | _____ | _____ |
| $\updownarrow$ jump                                                                                     | 跳跃      | _____                      | _____ | _____ |
|  unbounded             | 无界      | _____                      | _____ | _____ |
|  oscillates           | 振荡      | _____                      | _____ | _____ |
|  scale               | 比例      | _____                      | _____ | _____ |
|  table               | 表格      | _____                      | _____ | _____ |
|  limit theorems      | 极限定理    | _____                      | _____ | _____ |
|  Composite           | 复合函数    | _____                      | _____ | _____ |
|  direct substitution | 直接代入    | _____                      | _____ | _____ |
|  indeterminate form  | 未定式     | _____                      | _____ | _____ |
| $=$ equivalent form                                                                                     | 等价形式    | _____                      | _____ | _____ |
| $\times$ Factor and cancel                                                                              | 因式分解并约分 | _____                      | _____ | _____ |

| English                                     | 中文     | Write it 3 times (English) |  |  |
|---------------------------------------------|--------|----------------------------|--|--|
| $\div$ rational function                    | 有理函数   |                            |  |  |
| $\overline{ab}$ conjugate                   | 共轭     |                            |  |  |
| $\sqrt{\quad}$ radical                      | 根式     |                            |  |  |
| $\uparrow$ dominant                         | 主导     |                            |  |  |
| $\bowtie$ squeeze theorem                   | 夹逼定理   |                            |  |  |
| $\odot$ discontinuous                       | 间断     |                            |  |  |
| $\bigcirc$ Removable discontinuity          | 可去间断   |                            |  |  |
| $\times$ Jump discontinuity                 | 跳跃间断   |                            |  |  |
| $\uparrow \equiv$ Infinite discontinuity    | 无穷间断   |                            |  |  |
| $\langle   \rangle$ vertical asymptote      | 垂直渐近线  |                            |  |  |
| $—$ continuous                              | 连续     |                            |  |  |
| $\hookrightarrow$ continuous on an interval | 在区间上连续 |                            |  |  |
| $x^2$ exponential                           | 指数     |                            |  |  |
| $\ln$ logarithmic                           | 对数     |                            |  |  |
| $\surd$ trigonometric                       | 三角     |                            |  |  |
| $\nearrow$ piecewise-defined function       | 分段函数   |                            |  |  |
| $()$ parameter                              | 参数     |                            |  |  |
| $\nearrow$ infinite limits                  | 无穷极限   |                            |  |  |

| English                                     | 中文          | Write it 3 times (English) |       |       |
|---------------------------------------------|-------------|----------------------------|-------|-------|
| $\infty$ limits at infinity                 | 无穷远处的<br>极限 | _____                      | _____ | _____ |
| $\gg$ end behavior                          | 末端行为        | _____                      | _____ | _____ |
| — horizontal<br>asymptote                   | 水平渐近线       | _____                      | _____ | _____ |
| $\circlearrowright$ degrees                 | 次数          | _____                      | _____ | _____ |
| $\div$ ratio of the<br>leading coefficients | 首项系数之<br>比  | _____                      | _____ | _____ |
| $\propto$ relative<br>magnitudes            | 相对大小        | _____                      | _____ | _____ |
| $\square$ Intermediate<br>Value Theorem     | 介值定理        | _____                      | _____ | _____ |
| $\checkmark$ existence theorem              | 存在性定理       | _____                      | _____ | _____ |