

AP Calculus AB - The Derivative as a Limit - Quiz

Common Core AP CALC AB 2.1, AP CALC AB 2.2, AP CALC AB 2.3, AP CALC AB 2.4 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

Test yourself on average and instantaneous rates of change, the limit definition of the derivative, tangent lines and differentiability with 10 multiple-choice questions. Pick one answer for each question, then read the explanation to see why it is right and which common mistake the other choices represent.

AP Calculus AB · Common Core State Standards: **AP CALC AB 2.1, AP CALC AB 2.2, AP CALC AB 2.3, AP CALC AB 2.4**

Remember

- The derivative is the limit of secant slopes, which are average rates of change.
- $f'(a)$ is the slope of the tangent line at $x = a$; the tangent is $y - f(a) = f'(a)(x - a)$.
- Both forms of the definition give the same value when the limit exists.
- Differentiable implies continuous, but continuous does not imply differentiable.