

AP Calculus AB
Breakdown for Fall Semester Exam

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Multiple choice (18 questions)

- 1) Tangent line (trig)
- 2) Derivative
- 3) Related Rate
- 4) Limit
- 5) Find the value of k to make the function continuous
- 6) Derivative
- 7) Write the equation of the tangent line
- 8) Find the derivative
- 9) Indefinite integral u sub!
- 10) Linear approximation |
- 11) Find when the function is concave up/down |
- 12) Related Rate
- 13) Implicit Differentiation
- 14) Limit
- 15) Find the derivative at a point. Implicit.
- 16) Particle Movement
- 17) Find the derivative at a point. Implicit.
- 18) Derivative

ch1 100

Motion 20

ch2 100

ch3 (1-7) 4b

ch3-7 100

ch4 (1-3) 100

10y

Free Response (3 questions)

- 1) Table Problem - average rate of change, Riemann Sum, compare values
- 2) Interpret Graph, Riemann Sum, 2FTOC
- 3) Particle Movement, differential equation.

Know the derivative of the $\text{arcsec}x$, arcsinx , $\ln(x)$, e^x

$$\text{arcsec}x = \frac{u}{\sqrt{u^2 - 1}}$$

$$\text{arcsinx} = \frac{u}{\sqrt{1-u^2}}$$

$$\ln(f(x)) = \frac{u'}{u}$$

$$e^x = e^x$$