Calc 1 Test 2 Review Playlist Guide

MAC2311 Calculus 1 Test 2 Practice A

0:00 4.1 Extrema on an Interval $f(x)=(x+2)^{2/3}$ on the interval [-4,-2]
3.32 4.1 Extrema on an Interval $f(x)=x^4-3x^2+4$ on the interval [-1,1]
8:20 4.1 Extrema on an Interval $y=x^4-2x^2-3$ on the interval $(0,\infty)$

MAC2311 Calculus 1 Test 2 Practice B
0:00 4.3 Intervals of Increasing and Decreasing $f(x)=e^{-x}+e^{3x}$

MAC2311 Calculus 1 Test 2 Practice C
0:00 3.5 Logarithmic Differentiation $y=x\sqrt{2x+1}$
4:30 3.5 Implicit Differentiation $x^2=(4x^2y^3+1)^2$

MAC2311 Calculus 1 Test 2 Practice D
0:00 4.6 Curve Sketching $f(x)=x^3+3x^2$
21:45 4.7 Optimization: Revenue/Cost/Profit

MAC2311 Calculus 1 Test 2 Practice E
0:00 3.7 Related Rates: Sphere
6:54 4.1 Extrema on an interval $f(x)=e^x-x$ on the interval [-2,2]

MAC2311 Calculus 1 Test 2 Practice F
0:00 3.5 Logarithmic Differentiation $y=\frac{(x+2)^2(2x-3)^3}{(3x-5)^4}$

MAC2311 Calculus 1 Test 2 Practice G
0:00 4.4 Second Derivative Test $f(x)=x^3+3x^2$
5:50 3.5 Implicit Differentiation $y^3+y^2-5y-x^2=-3$

MAC2311 Calculus 1 Test 2 Practice H
0:00 3.5 Logarithmic Differentiation $y=\frac{(3x^4-2)^5}{(3x^3+4)^2}$

MAC2311 Calculus 1 Test 2 Practice I
0:00 4.7 Optimization: Area
6:26 4.7 Optimization: Cost

MAC2311 Calculus 1 Test 2 Practice J
0:00 4.7 Optimization: Translating Mathematical Phrases
7:18 3.7 Related Rates: Cube

MAC2311 Calculus 1 Test 2 Practice K

0:00 4.2 Rolle's Theorem $f(x)=\frac{x^2-4}{x-1}$ on the interval [-2,2]

3:26 4.2 Rolle's Theorem $f(x)=\frac{x^2-2x-3}{x+2}$ on the interval [-1,3]

17:03 4.2 Mean Value Theorem $f(x)=x^3$ on the interval [-1,3]

MAC2311 Calculus 1 Test 2 Practice L

0:00 3.5 Logarithmic Differentiation $y=(x^5+5)^2\sqrt{2x^2+3}$

MAC2311 Calculus 1 Test 2 Practice M

0:00 3.5 Logarithmic Differentiation $y=2x^{2x}$

7:47 4.2 Mean Value Theorem $f(x)=3x-x^2$ on the interval [2,3]

MAC2311 Calculus 1 Test 2 Practice N

0:00 4.2 Rolle's Theorem $f(x)=(x-2)(x+3)^2$ on the interval [-3,2]

8:20 4.7 Optimization: Translating Mathematical Phrases

MAC2311 Calculus 1 Test 2 Practice O

0:00 4.7 Optimization: Area

5:35 4.2 Mean Value Theorem $g(x)=x^{2/3}$ on the interval [1,8]

MAC2311 Calculus 1 Test 2 Practice P

0:00 4.3 First Derivative Test (Critical Numbers, Increasing Decreasing, Extrema)
$f(x)=(x^2-1)^{2/3}$

12:35 4.4 Concavity and Points of Inflection $f(x)=\frac{24}{x^2+12}$

MAC2311 Calculus 1 Test 2 Practice Q

0:00 4.6 Curve Sketching $f(x)=3x^4+4x^3$

31:36 4.7 Optimization: Area

38:24 3.4 Derivative (Quotient and Chain) $y'=\frac{-3(x^2+1)}{(x^2-1)^2}$

43:35 4.7 Optimization: Translating Mathematical Phrases

MAC2311 Calculus 1 Test 2 Practice R

0:00 4.3 Compare First Derivative and Second Derivative Tests $f(x)=x^3+3x^2$

10:57 3.5 Logarithmic Differentiation $y=4x^{x^4}$

21.41 4.1 Extrema on an Interval $f(x)=2x^3-5x^2-4x+3$ on the interval [-1,4]

28:16 4.2 Rolle's Theorem $f(x)=2x^3-5x^2-4x+3$ on the interval [-1,3]

MAC2311 Calculus 1 Test 2 Q&A 10/21/23 Equation of Tangent Line Arc-tangent

0:00 3.6 Equation of a tangent line for $f(x)=\arctan(x)$ with slope $1/2$

MAC2311 Calculus 1 Test 2 Q&A 10/29/23 Criticle Numbers; Increasing Decreasing; Mean Value Theorem

0:00 4.3 Identify open intervals on which the function is increasing or Decreasing $h(x)=\cos\left(\frac{3x}{2}\right)$

12:13 4.2 Mean Value Theorem $f(x)=2\sin x$ on $[0,\pi]$

18:06 4.1 Find Critical Numbers of $g(x)=2x^2(8^x)$

MAC2311 Calculus 1 Test 2 Q&A 11/2/23 Concavity, Points of Inflection, Curve Sketching

0:00 4.4 Point of inflection and Concavity $f(x)=x\sqrt{x+27}$

14:22 4.6 Curve Sketching $y=\frac{x}{x^2+25}$

MAC2311 Calculus 1 Test 2 Q&A 11/12/23 Logarithmic Differentiation

0:00 3.5 Logarithmic Differentiation $y=\sqrt{\frac{x^2-100}{x^2+100}}$ $x>10$

15:46 3.5 Logarithmic Differentiation $y=(5+x)^{3/x}$, $x>0$

25:37 3.5 Logarithmic Differentiation $y=x\sqrt{x^2+5}$, $x>0$

33:27 3.5 Logarithmic Differentiation $y=x^{x-3}$, $x>0$