

# AP Calculus AB

## Unit 1 WS 4

Solve the following equations and round answers to 3 decimal places.  
(Graphing calculators are permitted!)

1.  $8x^2 - 2x - 1 = 0$

2.  $x^4 + 4x^3 - 9x^2 - 16x + 20 = 0$

3.  $4x^3 - 5x^2 - 6x^2 - 3 = 0$

4.  $2x^5 - 8x^4 + 7x^3 - 2x^2 - 8x + 4 = 0$

5.  $x^2 = e^x$

6.  $x^3 = \sin(x) - 1$

7.  $x^2 = 3 \ln x + 5$

8.  $x^4 + e^x = 2 \cos(x) + 3$

9.  $3^{2x} = 5^{x-1}$

10.  $\ln(7-x) + \ln(3x+5) = \ln(24x)$

11.  $3^{5x+1} = 5$

12.  $\log(3x+7) + \log(x-2) = 1$

13.  $e^{2x} + \ln x = \sin x$

14.  $\sin^5 x + x^2 = 4$

15.  $\frac{3}{x+1} - \frac{7}{x+2} = \frac{1}{x^2 + 3x + 2}$

16.  $|2x-1| = 5$

17.  $(x-1)^3 - 4 = 0$

18.  $\sqrt{2x-5} = 3$

19.  $\sqrt[3]{3x-2} = 2$

20.  $\sqrt{x+6} = x+2$