due: Wednesday:
1. Find the domain of the function $f(x) = \ln(x^2 - 2x - 3)$.
2. For what values of x is $\ln(x^2 - 1) > 0$?
3. Using RRAM$_3$, approximate $\int_1^7 \ln x\, dx$.
4. Using the trapezoidal rule with $\Delta t = .1$, approximate $\ln 1.4$.

Thursday:
1. pp. 178-179 / #15, 16, 18, 19, 20, 38, 39, 40
2. Find y':   a. $y = \ln\frac{2x+1}{x-3}$ c. $y = \ln(x^2 - 4x + 2)^5$
                        b. $y = \ln^8(\tan 3x + 2\sin 4x)$ d. $y = \ln(5x^7 - 2x^3 + 4)$
3. Find $f'(x)$ if $f(x) = x\ln x^2$.
4. If $y = \ln\sqrt{x}$, find y''.

Friday:
1. Differentiate:
   a. $f(x) = \ln\sqrt{4 + 5x}$ c. $\ln\frac{y}{x} + xy = 1$ e. $g(x) = \ln\left[\frac{3x-7}{(x^2-5)^3}\right]$
   b. $y = \ln(8 - 2x)^9$ d. $h(x) = \ln[(5x - 6)^4(2x^2 + 7)^6]$ f. $y = \ln^2(3x + 1)$
2. Write an equation of the tangent line to the curve $y = \ln x$ at $x = 2$.
3. Write an equation of the tangent line to the curve $y = \ln(4x^2 - 3)^5$ at the point whose abscissa is 1.
4. Which of the following expressions is equal to 0?
   a. $\ln\frac{1}{2} + \ln\frac{1}{2}$ b. $\ln 2 - \ln 1$ c. $\ln\frac{1}{3} - \ln 3$ d. $\ln\frac{3}{4} + \ln\frac{4}{3}$
5. Find $\frac{d\left(\ln\left(\frac{1}{1-x}\right)\right)}{dx}$.
6. Find the slope of the normal line to the graph of $y = \ln\left(\frac{2}{x}\right)$ at $x = 2$.

Monday:
1. pg. 179 / #43, 44, 46, 47, 48
2. For $x > 0$, if $y = x^{x^3}$, find y'.
3. If $f(x) = (x^2 + 1)^x$, find $f'(2)$.
4. pg. 184 / #83

Tuesday: Evaluate:
1. $\int\frac{dx}{2x}$ 3. $\int\frac{dx}{9-x}$ 5. $\int\frac{7dx}{x}$ 7. $\int\frac{xdx}{x^2+1}$
2. $\int\frac{5dx}{2x+3}$ 4. $\int\frac{\sin x dx}{2-\cos x}$ 6. $\int\frac{dx}{5x+1}$ 8. $\int\frac{\sec^2 4x dx}{1+\tan 4x}$

Monday: Evaluate:
1. $\int\frac{dx}{3-2x}$ 3. $\int\frac{6\ln x}{x}dx$ 5. $\int\frac{dx}{x\ln x}$ 7. $\int\frac{dx}{x+1}$
2. $\int\frac{4x^2 dx}{5x^3+7}$ 4. $\int\frac{\ln^5 4x}{x}dx$ 6. $\int\frac{xdx}{x+1}$ 8. $\int\frac{(x^2+2)}{4x}dx$