

Intro Differential Equations, Math 2280

Web site: <http://www.math.utah.edu/~gustafso/s2019/2280/index2280S2019.html>

First Exercise

Problem 1.2-2

Find a function $y=f(x)$ which satisfies the differential equation $dy/dx = (x-2)^2$ and the initial condition $y(2)=1$.

Book's Answer: $y=1+(1/3)(x-2)^3$

Your Job

Please write a one or two page solution.

Submit a **COPY** by Friday afternoon, Week 1, to JWB 113.

It will be returned on Wednesday of Week 2, with comments, no grade.

The final draft of 1.2-2 will be graded with the Week 3 homework.

Sample Solved Problem

The link below is handwritten work by Gustafson, Tyson Black and Jennifer Lahti. Try to do as well as Jennifer (best exposition in this PDF), but write your own draft, using your own style. Tyson's work for 1.2-1 shows the range of what is acceptable.

Read [Jennifer Lahti's draft](#) of Exercise 1.2-2, which is on page 4 of [1]. Compare to Tyson Black's solution, page 2. For more Exercises 1.2 by Jennifer Lahti, read [Jennifer Lahti Ex 1.2-5,8,10](#) in [2]. Read about Black and Lahti's ideas for writing reports [HERE](#) in [3].

[1] <http://www.math.utah.edu/%7Egustafso/s2019/2280/lectureslides/2250Week1exercises-tysonBlack-JenniferLahti-1.2-1+2.pdf>

[2] <http://www.math.utah.edu/%7Egustafso/s2019/2280/lectureslides/2250Week1exercises-JenniferLahti-1.2-5+8+10.pdf>

[3] <http://www.math.utah.edu/%7Egustafso/s2019/2280/syllabus/2280format.pdf>