UPCOMING SCHEDULE

Friday (Today): Section 2.1 and 2.2 (part 1)   – Quadratic Formula and Vertex Formula
Monday: Section 2.2 (part 2)   – Using functional notation with algebra
Tuesday: Lab   **HW 1.6, 2.1, 2.2(1) closes, *please also ask about 2.2 (part 2)***
Wednesday: Section 2.3 (part 1)   – Business Applications with Algebra
Thursday: Lab   **Please, please, please ask about 2.2 (part 2) and 2.3**
Next Friday: Section 2.3 (part 2)   – More examples of business applications

  Canvas Quiz 3 - There will be a Canvas quiz (#3) next week, but I am going to post lots of extra hints so check out Canvas next week, so stay tuned. The goal of this quiz will be to practice your quadratic facts.

Review Materials: Remember you can find extra review materials here: Dr. Loveless Review Page

- Review of 1.6 (Linear Supply and Demand)
- Review of 2.1 and 2.2 (part 1) (Quadratics) – includes several practice examples with detailed solutions.
- Review of 2.2 (part 2) (Functional Notation) – also extremely important skills, includes several practice examples.

OLD EXAMS: Here again is the Old Exam Archive. For extra review here are some old exam problems…

Problems about 1.6 (supply and demand):
    Problem 4(a) from Fall 2016 Exam 2 (Loveless)
    Problem 1(a) from Fall 2014 Exam 2 (Loveless)

Problems about 2.1 & 2.2 (part 1) HW (quadratics facts):
    Problem 1(b)(c), 2(a)(b) from Fall 2016 Exam 2 (Loveless)
    Problem 1(d), 2(b)(c) from Fall 2015 Exam 2 (Loveless)

Chapter 2 Skills Preview
There are TWO skills you absolute MUST know if you want to understand in chapter 2 (which is a major part of exam 2)

1. Quadratic Skills (2.1, 2.2 part 1):
   If you are given a quadratic function (for example: f(x) = -2x^2 + 16x + 4), can you
   (a) Find the x- and y-coordinates of the vertex.   Recall: $x = -\frac{b}{2a}$.
   (b) Solve for when the function equals zero (i.e. crosses the x-axis).   Recall: $x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$.
   (c) Draw a rough sketch based on these facts. *On every applied problem in chapter 2 sketch a rough sketch, this will help you in translating!!*

2. Functional Notation Skills (2.2 part 2):
   You must know functional notation and how to use it.
   Example: If $TC(x) = 5 + 3x + 2x^2$, then what is AC(x) and AVC(x)?

   Answer: $AC(x) = \frac{TC(x)}{x} = \frac{5+3x+2x^2}{x} = \frac{5}{x} + 3 + 2x$ and $AVC(x) = \frac{VC(x)}{x} = \frac{3x+2x^2}{x} = 3 + 2x$

   Example,   If $TR(x) = 50x - 2x^2$ and x is in items, what is MR(x)?
   Answer: $MR(x) = \frac{TR(x+1)-TR(x)}{1} = \frac{[50(x+1)-2(x+1)^2]-[50x-2x^2]}{1}$
        $= 50x + 50 - 2(x^2 + 2x + 1) - 50x + 2x^2$
        $= 50 - 2x^2 - 4x - 2 + 2x^2$
        $= 48 - 4x.$

You will practice these skills in homework and I have important extra practice in my review sheets. It is VITAL, VITAL, VITAL that you master these ideas before the end of next week. You will USE these skills extensive in the application in section 2.3. Section 2.3 is much harder if you don't know the facts from 2.1 and 2.2.

Okay, if you find something helpful here, please advertise to your classmates. I want these materials to be used.
  - Dr. Andy Loveless