Here is a checklist of what is assigned for Week 3 to do by 11:59 PM Sunday, September 14.
Note: E-HW2 Sections 2.1 and 2.2 is due 11:59 PM Wednesday, September 17.

|  |  | Tasks for Week 3 <br> Modeling with Linear Functions, Input \& Output, and Domain \& Range | $\begin{aligned} & \checkmark \\ & \text { when } \\ & \text { done } \end{aligned}$ |
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| 1. |  | After reading Section $\mathbf{1 . 5}$ of the text, watch the Video of Class Lecture $\mathbf{6}$ on Section 1.5. This video contains a Power Company problem similar to the one discussed on the forum. Learning Objectives: <br> 1. Determine the slope and equation of a horizontal line and a vertical line. <br> 2. Determine the following geometric properties for linear functions from their equations: <br> - when two lines are parallel and when they are perpendicular <br> - when their y-intercepts are positive or negative <br> - when they are increasing or decreasing (or neither) <br> 3. Construct linear models and find intersection points to solve problems and make predictions. <br> After watching the video: <br> For additional practice, work these problems out of the text (no need to submit them to me) <br> Section 1.5-1 through 18, 22-25, 31, 32, 34 (not for hand-in) <br> The worked out solutions are on reserve at the Information Desk at the Helmke Library. <br> You can get electronic versions of many of these on eHW in the Practice Questions area. |  |
| 2. |  | Complete Interactive Video V08: A Day at the Races This 4 min video covers material in Section 1.5. It is similar to the Power Company Problem. (You have unlimited attempts to earn $100 \%$.) |  |
| 3. |  | $\square \begin{aligned} & \text { Complete E-HW1 Chapter } 1 \text { due 11:59 PM Sunday, Sept. } 14 . \\ & \text { (Unlimited attempts allowed! Your highest score counts.) }\end{aligned}$ |  |
| 4 | a. | Complete Interactive Video V09: Input and Output This 5 min video covers material in Section 2.1 of the text. (You have unlimited attempts to earn 100\%.) <br> Learning Objectives <br> 1. Use a graph, table, or an equation to evaluate a function or find its input(s) given its output. <br> 2. Solve equations and inequalities and interpret the results. <br> 3. Evaluate functions at given input. Solve $y=f(x)$ for the value of $x$ if given the value of $y$. <br> After watching the video: <br> For additional practice, work these problems out of the text (no need to submit them to me) <br> Section 2.1 -- 9, 10, 16-20, 28, 30, 32 and Chapter 2 Review -- 21-26, 35, 36 <br> The worked out solutions are on reserve at the Information Desk at the Helmke Library. <br> You can get electronic versions of many of these on eHW in the Practice Questions area. |  |
|  | b. | Optional: Video of Class Lecture 7 is available to watch if you want additional help, but this repeats some of what is done in Interactive Video V09: Input and Output |  |
| 5. |  | After reading Section 2.2 of the text, watch the Video of Class Lecture 8 on Section 2.2 Learning Objectives: <br> 1. Use set notation, inequality notation, or interval notation. <br> 2. Use the following to report the domain and range of a function: <br> - table • verbal description • graph - equation (algebraically using the restrictions on the input variable) <br> 3. Given a function that is used to model a real world situation, report the implied domain and range. <br> After watching the video: <br> For additional practice, work these problems out of the text (no need to submit them to me) Section 2.2 - 1-14, 19-24, 27, 29, 36 and Chapter 2 Review -- 36 (not for hand-in) The worked out solutions are on reserve at the Information Desk at the Helmke Library. <br> You can get electronic versions of many of these on eHW in the Practice Questions area. |  |


| 6. | Complete Interactive Video V10: Domain and Range This video covers material in Section 2.2 <br> (You have unlimited attempts to earn 100\%.) |  |  |
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| 7. |  | Complete E-HW2 Sections 2.1 and 2.2 due 11:59 PM Wed., Sept. 17. <br> (Unlimited attempts allowed! Your highest score counts.) |  |
| 8. | Please continue to use the Student Discussion Forum in Blackboard to post questions and <br> answers in the forum called Chapter 1: Linear Functions and Change or Chapter 2: Functions <br> Substantive activity in the forum will add a maximum of 5 points to your score to Interactive <br> Video V10: Domain and Range |  |  |

