

WebAssign Homework Hints: Lessons 23 – 32

Lesson 23 assignment:

- On problem #1, the graph of the function f given at the beginning of the problem is used to answer each part of the problem (parts a – j). Rather than scrolling back and forth to view the original graph, you may want to print the original graph, or copy it yourself on graph paper.
- Also on problem #1, it might be helpful to list some ordered pairs from the graph of the function $y = f(x)$, then transform those ordered pairs to identify the correct graphs of the new functions
- On problems #2 and 3, it might be easier to find the functions needed for part c. by transforming the functions in part b, rather than the original functions.
- Also on problems #2 and 3, remember to write your answers in terms of the original function f by including f in your answers; for example, $f(-x) + 3$.
- On problems #4 and 5, keep in mind that order is important when writing intervals. Intervals should always be written from smallest to largest when going from left to right, just like a number line.
- Read the directions very carefully on problem #8. Be sure to enter your answers in the correct format.

Lesson 24 assignment:

- Do not approximate unless the directions say to do so; enter exact answers.
- Keep in mind that increasing, decreasing and constant intervals are ALWAYS written in terms of inputs (x -values).
- On problems #4 – 7, it might be helpful to use specific values from each interval first, then use those values to find the general expressions for each interval. Be sure to simplify each expression **completely**.
- On problem #6, don't forget to include the selling price of each book when finding the piecewise-defined function. If each book sells for \$12, this needs to be included as part of the author's royalties.

Lesson 25 assignment:

- Keep in mind that increasing, decreasing, and constant intervals are ALWAYS written in terms of inputs (x -values).
- On problems #3 – 5, the axis of the parabola is a vertical line about which the graph is symmetric (this is not the standard equation of a parabola). Think about how to write the equation of a vertical line.
- On problem #8, simplify the equation completely.

Lesson 26 assignment:

- **DO NOT APPROXIMATE; if your answer contains a fraction, enter a fraction in WebAssign, do enter a decimal approximation.**
- Set-up problem #3 just like problem #2. Express the length of the rectangle y as a function of the width x , then express the total area of the rectangle A as a function of x .

- On problem #4, the directions state “the maximum height off the ground is $3a$ feet”, then a value for a is given. Keep in mind that this is **NOT** the same as a in $y = a(x - h)^2 + k$. This should be obvious since the a provided in the problem is positive, but the parabola is opening downward.

Lesson 27 assignment:

- On problems #9, 10, and 11, write two functions based on the information given in the problems, then write a composition of the two functions.
- To include the π symbol on problem #9, simply type pi.
- On problem #10, use the calcPad to enter a cubed root ($\sqrt[3]{\quad}$). Click on the answer box to make calcPad appear, then click Functions to find the n^{th} root option.
- On problem #11, be sure to factor completely.

Lesson 28 assignment:

- On problem #7, because there are restrictions, it might be best not to cancel out the common factors.
- On problem #11, in order to solve the inequality $R > S$, a substitution needs to be made (an equivalent expression should be provided for R).

Lesson 29 assignment:

- On problem #8, plug-in the x -coordinate and the y -coordinate of the given point, then solve for k .
- On problem #9 part a., be sure to factor your answer **completely**.

Lesson 30 assignment:

- **DO NOT APPROXIMATE UNLESS THE DIRECTIONS SAY TO DO SO; ENTER EXACT ANSWERS.** Decimals are fine as long as they are exact and not approximate.
- On problem #5, it might be helpful to convert all decimals to fractions before attempting to find k . Also, it might be best to leave k as a fraction.
- On problem #6, use 5,280 feet instead of 1 mile.

Lesson 31 assignment:

- **DO NOT APPROXIMATE UNLESS THE DIRECTIONS SAY TO DO SO; ENTER EXACT ANSWERS.** Decimals are fine as long as they are exact and not approximate.

Lesson 32 assignment:

- **DO NOT APPROXIMATE; if your answer contains a fraction, enter a fraction in WebAssign, do enter a decimal approximation.**