WebAssign Homework Hints: Lessons 16 – 25

Lesson 16 assignment:

- On problem #1, the 5th option under Tools is used to plot points and the 2nd option is used to graph lines. To graph a line segment with closed endpoints, click the right arrow on the 2nd option under Tools, then select the third option from the list.
- On problem #2, notice that the answer boxes already have parentheses around them, so you only need to enter the appropriate ordered pairs, but you do **NOT** need to enter parentheses.
    - This is also true on problems #4, 5, 7, 9, 10.
- On problem #6, find the distance between each point first, then use the Pythagorean Theorem to prove that the triangle is a right triangle.
- On problem #10, set-up an equation using the distance formula, then solve the equation for the variable a. If a has more than one value, determine which value satisfies the requirement of being in a specific quadrant.

Lesson 17 assignment:

- When graphing lines, parabolas, and/or circles in WebAssign, do not start by plotting points. Simply use the graphing tools available to left of the graph (tutorials are available on the graphs before you begin).
- On problems #1 – 4, you are entering ordered pairs in the answer boxes, and parentheses are not included, so you need to be sure to **INCLUDE** parentheses when entering your answers.
- On problem #2 and 3, find the intercepts algebraically (do not use the graph) and enter exact answers (do not approximate).
- On problem #4, it might be helpful to use an xy-chart to graph the equation on your own, then find the graph that matches.
- On problems #12 and 13, you are entering ordered pairs again, but this time the parentheses are included around the answer boxes, so you do **NOT** need to include parentheses when entering your answers.
- On problem #15, try to use the width (or the height) of the circle (its diameter) to determine the radius, and then the center.
- On problem #17, imagine that the first radio station is centered at the origin of an xy-coordinate system; use graph paper to plot the second radio station and use the distance formula to solve part a. On part b., add the listening radius of the first station and the listening radius of the second station together, then think about what it means if the sum is greater than the distance (overlap or no overlap).

Lesson 18 assignment:

- On problems #1 – 4, do not start by plotting points in WebAssign; simply use the graphing tools available to left of the graph (tutorials are available on the graphs before you begin).
- On problems #5 – 11, read the directions carefully. Pay attention to whether each equation should be in slope-intercept form or general form.

Lesson 19 assignment:

- On problems #1, 2, 6, 7, and 8, read the directions carefully. Pay attention to whether each equation should be in slope-intercept form or general form.
- On problem #2, the word bisect means to cut into two equal parts that are the same size and shape. Think about what kind of line could bisect both quadrants.
- On problem #4, notice that $y =$ is to the left of each answer box, so you do not need to enter this when typing your answers.
    - If the equation of your line is $y = mx + b$, you only need to enter $mx + b$.
- On problem #8 part a., write your slope as a fraction, not a decimal.
- On problem #9 part (a), set-up an equation to express that degrees Celsius and degrees Fahrenheit are the same (equal), then make substitution so you only have one variable (either C or F) and solve. Use the same idea on part (b).
- On problem #9 part (b), notice that $F =$ appears to the left of the answer box; that means you should enter your answer for in degrees Fahrenheit, not Celsius.

Lesson 20 assignment:

- Be sure all answers are simplified completely. For example, do not leave an answer like $7(a + h) - 8$, simplify it as $7a + 7h - 8$.
- On part (f) of problems #3, 4, and 5, break the expression $\frac{f(a+h)-f(a)}{h}$ into smaller pieces. For instance, take $f(a + h)$ from part (d) and $-f(a)$ from part (c) and put them together first. Then take the result and write it over h. Finally, simply the fraction by cancelling any common factors.
- On part (d) of problems #6, 7, and 8, be sure to simplify the radicals **completely**.
- On parts (d) and (e) of problems #9 and 10, it might be helpful to draw the graphs on your own paper (or simply print out the graphs from WebAssign) and graph the line $(x) = 1$ $(y = 1)$.
- On problem #12, you need to list the values that are **EXCLUDED** from the domain of the function, not the domain itself.

Lesson 21 assignment:

- On problems #1 and 10, do not start by plotting points in WebAssign. Simply use the graphing tools available (tutorials are available on the graphs before you begin).
- On problem #7, be sure your answer is factored completely.
- On problem #10 part a, $y(t) =$ is already given to the left of the answer box, so only the expression needs to be entered.
    - for instance, if the function is $y(t) = mx + b$, only $mx + b$ would be entered in the answer box.
- On problem #10 part b, the graph should be a line segment with the endpoints included.
- On problem #11, be sure to simplify your answer **completely**.
- On problem #12 part a, it might be best to leave your answer in factored form; this will make part b easier to solve.

Lesson 22 assignment:

- On problems #8, 9, 10 and 11, you do **NOT** need to enter parentheses when entering ordered pairs in the answer boxes; parentheses are already included on the outside of the answer boxes.

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:

- On problem #1, do not start by plotting points. Simply use the graphing tools available (tutorials are available on the graphs before you begin). The option to select open or closed endpoints should be available near the bottom of the graph.
- 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.