

## WebAssign Homework Hints: Lessons 1 – 15

### Lesson 1 assignment:

- On every problem in every assignment, be aware that WebAssign is case sensitive; if a problem gives you only lowercase letters, your answer should contain only lowercase letters.
- On problem #2, use your TI-30Xa scientific calculator.
- On problems #6, 8, 9, 12, and 14, do **NOT** leave negative exponents in any of your answers.
- On problem #8, read the directions very carefully; be sure to enter your answers in the correct format.

### Lesson 2 assignment:

- On every problem in every assignment, be aware that WebAssign is case sensitive; if a problem gives you only lowercase letters, your answer should contain only lowercase letters.
- On problems #1 and 2, read the directions very carefully; be sure to enter your answers in the correct format.
- On problems #1, 3, 4, 5, 8, and 9, do **NOT** leave negative exponents in your answers.
- On problem #11, once you convert from rational exponents to radical form, be sure to simplify the radicals as much as possible.
- On problems #16 and 17, be sure your radicals are as simplified as possible (no factors under the radical with an exponent larger than the index). Also, be sure that your fraction is as simplified as possible as well (no common factors that are outside of radicals in the numerator and denominator).

### Lesson 3 assignment:

- Enter your answers in polynomial form.

### Lesson 4 assignment:

- Be sure all answers are factored COMPLETELY. If you factor a polynomial, always check to see if your factors are factorable.

### Lesson 5 assignment:

- Enter answers in factored form whenever possible.
- On problem #1, enter a **simplified** fraction; do not enter a decimal.

### Lesson 6 assignment:

- Enter answers in factored form whenever possible.

### Lesson 7 assignment:

- Only enter restrictions for equations with INFINITELY MANY SOLUTIONS; if you don't have infinitely many solutions, enter NONE for the restrictions.
- For rational equations, ALWAYS verify that your solutions do NOT produce a zero in the denominator.
- On problem #9, substitute the value for  $x$  into the equation, then solve for  $c$ .

- On problems #10 – 15, be aware that WebAssign is case sensitive; pay attention to whether you are working with lowercase letters or uppercase letters.

**Lesson 8 assignment:**

- Read each problem slowly, carefully, and repeatedly.
- On each problem, be sure to check that your answers are reasonable. On problem #13 for instance, does it seem likely that a boy would row a boat 42.5 miles?

**Lesson 9 assignment:**

- Read each problem slowly, carefully, and repeatedly.
- Keep in mind the variables given in the problems are not always the same as the variables used in formulas.
  - o On problem #2,  $h$  represents the height of the second story of the house; this is not the same as  $h$  in the formula  $A = \frac{1}{2}bh$ , which represents the height of a triangle.
  - o On problem #3,  $h$  represents the height of the window; this is not the same as  $h$  in the formula  $A = bh$ , which represents the height of a rectangle.
  - o On problem #4,  $h$  represents the height of the silo; this is not the same as  $h$  in the formula  $V = \pi r^2 h$ , which represents the height of a right circular cylinder.

**Lesson 10 assignment:**

- On problems #3 and #4, you MUST check your answers to verify they do not result in a denominator of zero; if they do, they are not valid solutions.
- Also on problems #3 and #4, only enter restrictions if there are INFINITELY MANY SOLUTIONS; otherwise, enter NONE.

**Lesson 11 assignment:**

- On problem #3, you MUST check your answers to verify they do not result in a denominator of zero; if they do, they are not valid solutions.
- Also on problem #3, only enter restrictions if there are INFINITELY MANY SOLUTIONS; otherwise, enter NONE.
- On problem #4, the variable  $d$  represents distance, so only the positive root should be entered.

**Lesson 12 assignment:**

- On problems #3 and 4, it will be helpful to draw diagrams using the information provided in the problems. If you do, you should have two rectangles on each problem; an inner rectangle and an outer rectangle. Keep in mind that each rectangle will have different dimensions (length and width). Be sure you are using the correct dimensions for the problem.
- On problem #5, pay attention to the units next to the answer box. This should give you an idea of what kind of answer you should enter.
- On problem #7, it will be helpful to draw a diagram. If you do, you should notice that the distance that each surveyor travels, and the distance between the two surveyors, forms a right triangle. You can then use the Pythagorean Theorem ( $a^2 + b^2 = c^2$ ) to solve the problem.

- On problem #7, keep in mind that you are not asked when the surveyors are a certain distance apart, you are asked how long it takes for them to be a certain distance apart. This means you shouldn't enter a time, such as 10:00 A.M., you should enter a unit of time, such as 60 minutes.
- On problem #8, try to find the dimensions of the square base and top first. Keep in mind that the dimensions of the square top should be the same as the base. Once you find the dimensions of the base and the top use them and the 1 inch squares that are cut out from the corners and the middle section to find the dimensions of the original piece of cardboard.
- On problem #9, try to set-up two equations using the formula  $d = r \cdot t$ . Both equations should contain two unknowns, and you should be able to solve by making a substitution.

### Lesson 13 assignment:

- Be sure to read the directions carefully and enter your answers in the correct format ( $a + bi$ ).

### Lesson 14 assignment:

- On problems #7 and 8, you should have four answers for each problem.
- On problem #8, **ENTER EXACT ANSWERS ONLY, DO NOT APPROXIMATE.**
- On problem #9, it might be helpful to convert the rational exponents to radicals. If you do, keep in mind the restrictions on radicals with even roots, such as square roots. Also, keep in mind that when you take the square root of both sides of an equation, you end up with a positive root and a negative root.
- On problem #10, do use any of the numbers given in the problem; simply solve the formula for the given variable.
- On problem #11, **ENTER EXACT ANSWERS ONLY, DO NOT APPROXIMATE.**

### Lesson 15 assignment:

- Inequality signs are available in the calcPad under Relations.
  - o To make the calcPad appear, click any answer box.
  - o If the calcPad doesn't appear, you shouldn't need it to enter that answer.
- The union symbol  $\cup$  is available in the calcPad under Sets.
- On problem #1, the each part is considered a new problem involving the original arguments; the parts do not build on one another.
- When writing an inequality and/or an interval, be sure your answer makes sense. For instance, if you have two inequalities  $x < -7$ ,  $x > 7$  it would **NOT** make sense to write this as a compound inequality  $7 < x < -7$  because 7 is **NOT** less  $-7$ . In this case, you should leave the inequalities separate and use the union symbol ( $\cup$ ) to connect them  $(-\infty, -7) \cup (7, \infty)$ .
- On problem #7, do not write a compound inequality; infinite intervals should be written as simple inequalities.
- On problems #18 and 19, make a substitution first. For instance on #19, substitute  $4.5x$  in for  $F$ , then solve the compound inequality for  $x$ . Also, enter exact answers only (no decimals).
- On problem #20, start by writing an expression for the total cost (purchase price plus yearly maintenance) of each crane, and be sure to include a variable to represent the number years each crane is kept. Then, write an inequality to show that one model is less expensive than the other, and solve for the variable representing the number of years needed for this to happen.