

## **Thomson Now Hints for Lessons 28 and 30 (Lesson 29 on paper/pencil)**

### **In general:**

You can visit [www.math.purdue.edu/MA\\_153](http://www.math.purdue.edu/MA_153) and use the discussion board to post questions and/or read responses. Kristin will be live on that board MWF from 7-9 pm all semester. If you post a question at a different time, she will respond as soon as she is able. Do not post after 9 pm on a due date and expect an immediate answer. She will not help you as a tutor, but may provide some hints. Please do not expect her to solve things for you.

You can always view the correct answer to each problem after submitting the assignment. Click on “view details”. It will show you what you entered and what the correct answer was. If you log back into the assignment, you will get a different version of the problems that were not correct. Correct problems stay correct and you do not redo them.

### **Lesson 28:**

USE A SIGN CHART FOR THESE PROBLEMS.

#5 Math hint: Because this is an inequality, you cannot take the square root of both sides and use +/- . One way to handle this problem is to subtract the number to the left side and factor the difference of squares. Then use a sign chart to finish.

#7 Math hint: Even if you have a common factor to cancel, be sure to include the value that makes it zero in the sign chart. For example, if you have  $\frac{(x+1)(x-2)}{(x+1)(x+3)} \leq 0$ , then -3, -1, and 2 must be included on the top of the sign chart. Then you are welcome to cancel the common  $x+1$  and list only  $x-2$  and  $x+3$  as your factors along the side of the chart to find the resulting sign. Also, for interval notation, we can never divide by zero, so we must always use parentheses with -3 and -1, if necessary. The answer to this example would be  $(-3,-1) \cup (-1,2]$ .

#8 Same comment as for #7. Remember to always use parentheses for a value that makes the denominator zero.

#9 Math hint: Move the number on the right to the left side and combine fractions before attempting the sign chart.

#10 Use interval notation for your answer. When doing the sign chart, time will never be negative. Instead of ranging the sign chart from  $-\infty$  to  $\infty$ , it should range from 0 to  $\infty$

#11 Math hint: Do not use negative velocities within your sign chart (velocity should only be positive). Your sign chart will start with zero (not including).

### **Lesson 29 is on paper and pencil**

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### **Lesson 30**

#4 (b) Enter a simplified fraction. For example,  $\frac{3}{0.4}$  would be  $\frac{3}{4}$  or  $\frac{30}{10}$  which reduces

to  $\frac{15}{2}$ . Enter  $\frac{15}{2}$  in this example.

#5 (c) Remember units must agree. Parts (a) and (b) have distance in feet so you must convert the number miles in part (c) to feet. 5280 feet = 1 mile.