Mth 28, Homework 3 on section 6.5

Due by Thur, Feb 22 (or the following class).

Try these questions. Write all your working out and answers on your own notepaper. Please use lots of space and as many pages as you want, so I can include corrections or comments. You do not need to write the questions, but it is very important that you show clearly any work you had to do to get your answers. Each question is worth 2 points.

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(1) Solve using the zero product property: $(x-4)(2x+3)=0$

(Write your final answer as "The solutions are $x = ...$ and $x = ...$", for the two numbers we want.)

(2) Solve and check your solutions work: $x^2 - x - 20 = 0$

(Hint: Factor the left side and then use the zero product property to get the two solutions. Substitute your solutions and check you get true equations.)

(3) Solve:

(a) $2x^2 = 32$

(b) $2x^2 = 32x$

(For both of these, move everything to the left first to get it equal to zero. Then factor the left side...)

(4) Solve: $x^2 + 2x = 15$

(5) The product of two consecutive positive odd numbers is 63. What are these two numbers?

(Let x be the first of the consecutive odd numbers. Then the second must be $x+2$, like 11 and 13 for example. Make an equation from the information in the question and then solve it to get possibilities for x. The x we want has x and $x+2$ positive, these are the numbers we're looking for.)

If you get stuck on a question or aren't sure if you understand it:

- Go over the relevant class notes and section in the textbook.
- Check if you get the right answer for a similar odd-numbered question in the textbook (answers at the back of the book).
- Ask me about it after class.
- Come to my office hours: Mon 12:00 - 1:00, Wed 12:00 - 1:00 in CP 317.
- Go to the Math Tutorial Lab in-person in CP 303 or online.