

TUESDAY 3/27 ELLIPSES

OBJECTIVE

- Write equations of ellipses

CLASSWORK

- Classwork A Hard Copy
- Classwork B Hard Copy
- Classwork C Hard Copy

These are distributed in the following way – there is a lecture covering the topic on one side, and the Classwork on the other side. Thus this provides a record of the material covered, and the student's work, which s/he will use for homework tonight, and for future test review.

HOMEWORK

- Text P437 #7 – 19, Odds, #12

LAST HOMEWORK

- Read/Take Notes CH 8.4, P433-436. Do P 437 #1 ,2

All of the above is written on the board before the students enter the room, and remains for the duration of the class. The below is my Agenda for the class:

AGENDA

11:50

- *A large diagram of ellipse characteristics is now hung next to the Circles diagram at the front of the room.*
- *Distribute 2 pages (1 doublesided sheet): I Large ellipse model, and II variations of the ellipse*
- *Lecture A. Definition of ellipse. Ellipses whose center is the origin. Major, minor axes. Foci. Examples.*
- *A physical model is now demonstrated. This is a homemade “ellipse generator” composed of a board, string, and nails which based on the definition of an ellipse -- “all (x,y) whose distance from the two foci is constant” -- can be used to draw perfect ellipses on the whiteboard.*

12:10

- *Classwork A (deals with ellipses whose center is the origin)*

12:20

- *Lecture B. What if you just know the foci and one axis?*
- *Classwork B (deals with variations of the sets of info we have going in)*

12:30

- *Lecture C. Translation of ellipses to a point away from the origin. The effect of this translation on the ellipse equation.*
- *Classwork C (students practice moving ellipses away from the origin and writing the equations for these translated ellipses)*

COMMENTS ON THIS CLASS:

1. I knew even in the planning that this was a lot to do in 57 minutes. As it was, I chose to leave out showing the physical model, since that would take time -- ideally I wanted a student to do it at the front of the room. However everything else was completed.
2. I am handing in this assignment on the evening of 27 March and so do not know how well they handled the homework. The homework was very comprehensive and the students would need to have mastered lectures A, B and C to successfully complete it.