

Pre Calculus

Date:

Items Needed: .Book,

Objective: The students will be able to convert degrees to degree – minutes – seconds and vice versa.

PA Common Core: cc.2.2.hs.c.7

Lesson:

- Talk about the degree minutes second notation.
- Minute = $1/60$ of one degree
- Second = $1/3600$ of one degree.
- To convert from DMS format to decimal is fairly simple. The degree part is the whole number and the minutes and seconds determine the decimal.

$$\text{deg } ree + \text{min } utes \cdot \frac{1}{60} + \text{sec } onds \cdot \frac{1}{3600}$$

- To go backwards the whole number is the degree.
- **Remaining Decimal Degree** = Decimal degree – whole number
- **Minutes** = trunc (**Remaining Decimal Degree*** 60)
- **Remaining Decimal Minutes**=(**Remaining Decimal Degree*** 60) - **Minutes**
- **Seconds** = **Remaining Decimal Minutes*** 3600
- Make up a couple of examples and do.

Assignment: .Have students do 68-78 (e), also do 70 & 77 by hand, p. 262

Evaluation: (Could be from any one/several of the following)

Responses from classroom questions
Results of classroom sample problems
Homework responses
Check answer with Calculator
End of the section exam

Enrichment: