

Your space craft is returning from a mission to Mars. You are a science officer and member of a 7 person crew. Your minimum return trip time (mrtt) to Earth is 235 days.

An accident occurred on day 66 of the return trip home which damaged the machinery. This machinery provides oxygen during the flight home. You know the following information:

- Minimum oxygen consumption per person each day is 0.712 kilograms
- The space craft left on the return trip with 350 kg of oxygen in storage.
- Before the accident, the machinery produced 4.3 kg of oxygen each day.
- After the accident, the machinery produces **at most** 2 kg of oxygen daily.



**Calculate and document answers to the following questions:**

1. Can all crew members get home safely before oxygen runs out? Why or why not?
2. If not, what is the drop dead date?
3. To ensure most of the crew returns home, how many of the crew must be sacrificed?

**Show All Work! An accurate graphical solution is required.**

**Provide all calculations, graphs, and spreadsheets in a word processed (MS Word) report detailing the answers to the questions.**

View "PLAYER BY HEINEN" at: <http://markeredwards.com/stats/stats.html> for acceptable paper formatting.

**This project is due NLT midnight on Thursday, March 2, 2017.**

**Send as an email attachment to: mheinen\_1@msn.com**