

Your space craft is returning from a mission to Mars. You are a science officer and member of a 8 person crew. Your minimum return trip time (mrtt) to Earth is 215 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 300 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 3 kg of oxygen daily.



Document the answers to the following questions:

1. Can all crew members get home safely before oxygen runs out?
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?

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

Show All Work! This project is due NLT midnight on Sunday, Oct 26th, 2014. Send as an email attachment to: mheinen_1@msn.com