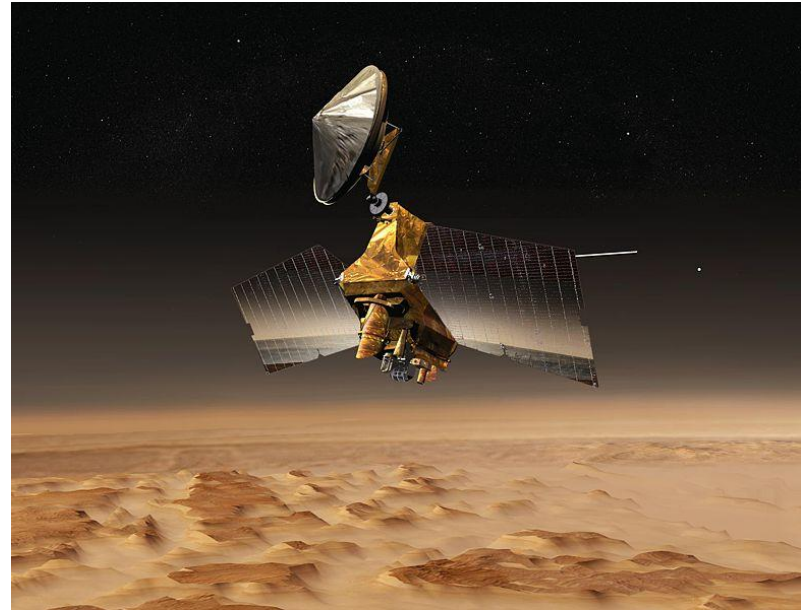


Your space craft is returning from a mission to Mars. You are a science officer and member of an eight (7) person crew. Your minimum return trip time (mrtt) to Earth is 235 days.

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 Mars 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 no more than 2 kg of oxygen daily.



Document the answers to the following questions:

Can all crew members get home safely before oxygen runs out?
If not, what is the drop dead date?
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 midnight, March 16, 2017. The project should be an MS Word document attached to an email sent to mheinen_1@msn.com. Include the Excel workbook as an attachment also. File names should be formatted as follows: Last_name-Mars Lab.docx or xlsx