

# ENGR 125CS

Mars: Dead or Alive

(FL07)

Name: \_\_\_\_\_

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1. How many people work on the Mars Exploration Rover (MER) project at the Jet Propulsion Lab?
2. Radio signals require about how long to travel from Earth to Mars?
3. Why didn't the MER team use an engineering model instead of an actual flight unit when testing the shock performance of the mini-TES instrument?
4. What happened during the first air bag "drop test" in the vacuum chamber?
5. Describe the first parachute "drop test": what went wrong?
6. Why is the engineering team worried about a possible landing at Gusev Crater?
7. What "quick fix" did the parachute engineers use to eliminate *squidding* of the chute?
8. Why was it necessary for the technicians to fire the explosive pyros holding the solar panels before the rovers were packaged for launch?
9. Which rover was launched first, the one named *Spirit* or the one named *Opportunity*?
10. How long after the launch did the first rover arrive at Mars?