

Chapter 5, Question 1: Rocket Performance

The ratio of propellant mass to total vehicle mass for a rocket is

- 1) Greater than
- 2) About the same as
- 3) Less than

the ratio of fuel mass to total vehicle mass for an airplane.

- 4) I don't know

Chapter 5, Question 1 Answer:

The correct answer is 1) Greater than

The ratio of propellant mass to total vehicle mass for a rocket is typically greater than 0.9 whereas for an aircraft, the ratio of fuel mass to total vehicle mass is around 0.25. The primary difference is that air-breathing engines don't have to carry oxidizer. Rather they harvest it from the air that flows through the engine. For space applications all of the propellant (oxidizer + fuel) must be carried on board the vehicle.

Class performance (2001):

Quiz 1 started at 10:23:51 AM

58 students logged in.

