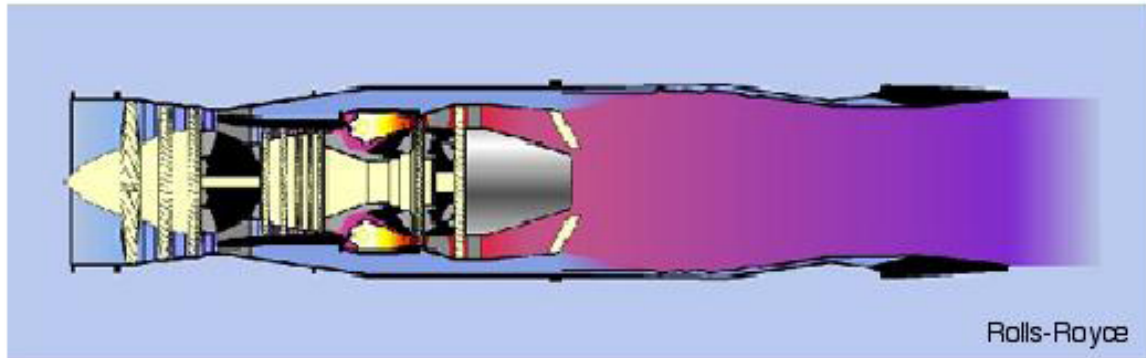# Chapter 8, Question 1: Turbojet Performance

For an ideal turbojet, the overall efficiency is a function of

Rolls-Royce

1) Only the temperature ratio across the compressor

2) The temperature ratio across the compressor and the flight Mach number

3) I don't know

L.O. G & H

Chapter 8, Question 1 Answer

The correct answer is 2) the compressor ratio across the compressor and the flight Mach number

The thermal efficiency is a function of the temperature rise from atmospheric conditions to the exit of the compressor. The propulsive efficiency is a function of the ratio of flight velocity to exit velocity. the overall efficiency is the product of the two and is thus influenced both by flight Mach number (flight velocity) and compressor temperature rise.

Class performance (2001):

Quiz 1 started at 9:18:37 AM

42 students logged in.

1	2	3	NR
33%	50%	0%	16%

Show ● Percentage ○ Numerical Value