

Chapter 6 Question #11

Consider a supersonic transport aircraft flying at $M=2.4$ at 18km. The atmospheric temperature is a **chilly 217 K**. What is your estimate of the skin temperature of the aircraft?

1) $T_{\text{skin}} = 101 \text{ K}$

2) $T_{\text{skin}} = 217 \text{ K}$

3) $T_{\text{skin}} = 467 \text{ K}$

4) I don't know



LO#4

Chapter 6 Question 11 Answer:

(3) T_{skin} = 467K

Found by using $T_{\tau}/T = 1 + (\gamma - 1)/2 * M^2$.

Class Response:

Question 2 : Question 2

