Name: Score:

30 Written questions

Definition 1 of 30

How does total temperature vary cross a normal shock wave?

Definition 2 of 30

Oblique shock relations are basically the same as those for a normal shock except M1 is replaced by __

Definition 3 of 30

How does entropy vary across an oblique shock wave

Definition 4 of 30

How does static temp vary across a P-M wave?

Definition 5 of 30

What is the quickest way to determine po2/po1 across an oblique shock

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Definition 6 of 30

Can we analytically determine T2/T1 across an oblique shock

Definition 7 of 30

How does entropy vary across a normal shock wave?

Definition 8 of 30

Turning a supersonic flow "away from" itself will produce a __wave

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Definition 9 of 30

How does enthalpy vary across a P-M wave

Definition 10 of 30

Write the mass conservation equation for 1-D flow in its simplest form

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Definition 11 of 30

Turning a supersonic flow "into" itself usually produces a(n) ____

Definition 12 of 30

How does entropy vary across a bow shock wave

Definition 13 of 30

Write the mass conservation equation for a Q-1-D flow

Definition 14 of 30

At the exit of a nozzle, for "under-expanded" flow, we observe the presence of __

Definition 15 of 30

Total ___ remains constant across a bow shock.

Definition 16 of 30

Give the equation for calculating the Mach angle mu for the free stream

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Definition 17 of 30

Does static pressure increase across an oblique shock?

Definition 18 of 30

How does static pressure vary across a P-M expansion wave?

Definition 19 of 30

Does static temperature increase across an oblique shock?

Definition 20 of 30

How does total pressure change across a P-M wave?

Definition 21 of 30

Beyond this flow delfection angle ___ , we get a bow shock wave

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Definition 22 of 30

How does total pressure vary across a bow shock?

Definition 23 of 30

Total ____ drops across a bow show wave

Definition 24 of 30

Turning a supersonic flow "into" itself will produce a/an ___ wave

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Definition 25 of 30

The best example of a "___" is the normal shock wave

Definition 26 of 30

Oblique shock relations are basically the same as those for a normal shock except M1 is replaced by Mn1

Definition 27 of 30

Can ew analytically find M2 and M1 for a normal shock wave

Definition 28 of 30

Can we analytically solve the theta-beta-M relation for M

Definition 29 of 30

In a liquid rocket engine, at full throttle, M at the exit is always

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Definition 30 of 30

Can we analytically determine p2/p1 across an oblique shock
