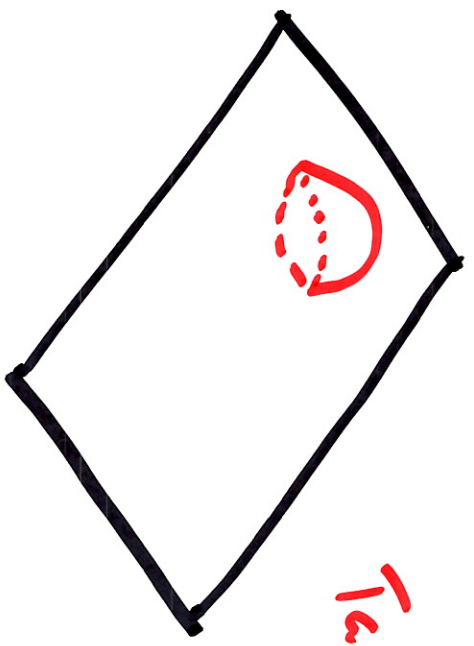


Lecture 22

11/9

Thursday (Nov 11) - Veteran's Day, No class



Task 3 - "iso surface"

≠

Engine oil - phase 2

Contour

↳ new surface

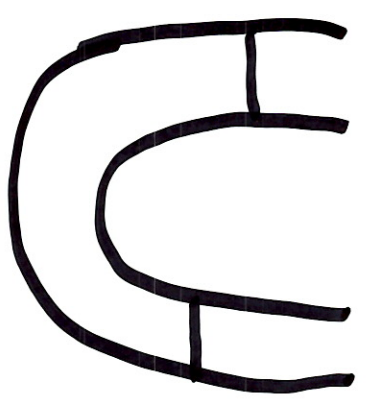
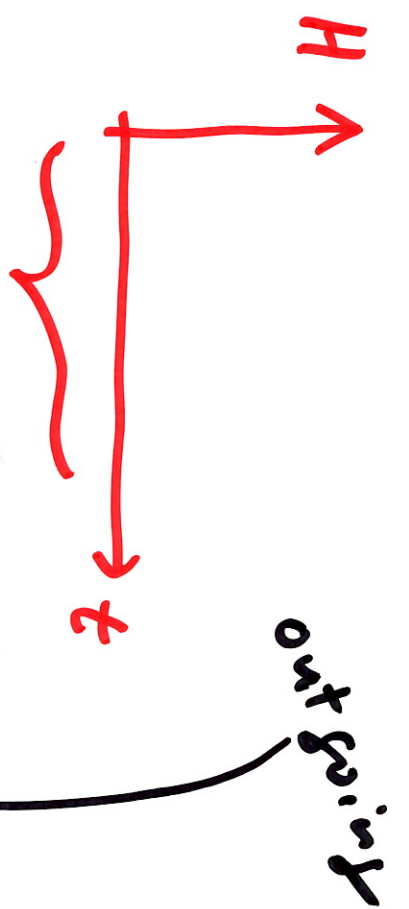
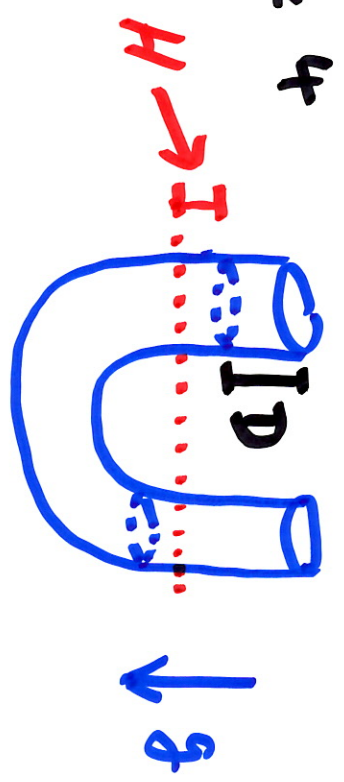
↳ iso surface

$$VF_2 = 0.9$$

(for example)

Left

Task 4



D : depth of Air column in left pipe

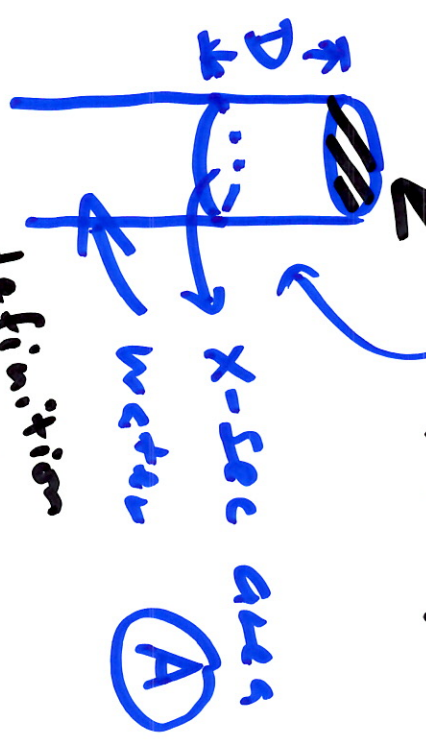
volume = $D \cdot A$

$m(t) = \text{mass} = \rho_{\text{AIR}} \cdot D \cdot A$

know $m(t_0)$

over 1 cycle at least

mass flow rate $M(t)$



report

definition
file
plot

(A)

$$m(t) = m(0) - \int_0^t M(\hat{t}) dt$$

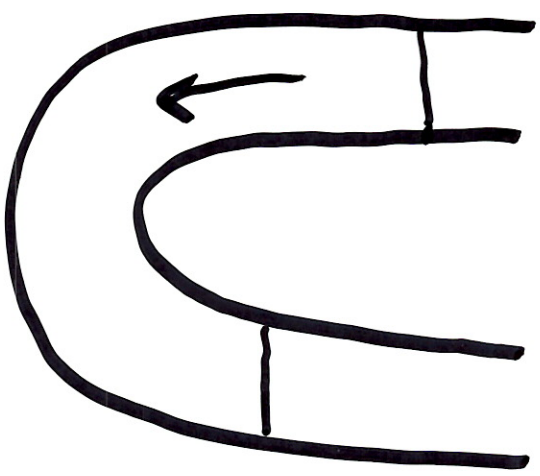
$$D(t) = \frac{m(t)}{\rho_{AIR} \cdot A}$$

$$m(t) \approx m(0) - \sum_j w_j M(t_j) \Delta t$$

.xy
□.out ←

Report file	
t	M(t)
0.01 s	□
0.02 s	□
0.03 s	□
...	...

Task 4



Container plot of u and v



exchange btwn
potential & kinetic
energy

Proj 1 Task 2



Boundary Condition

impose velocity \leftarrow velocity inlet ✓ ✓ ✓
 impose pressure \leftarrow pressure inlet ✓ ✓ ✓

wall

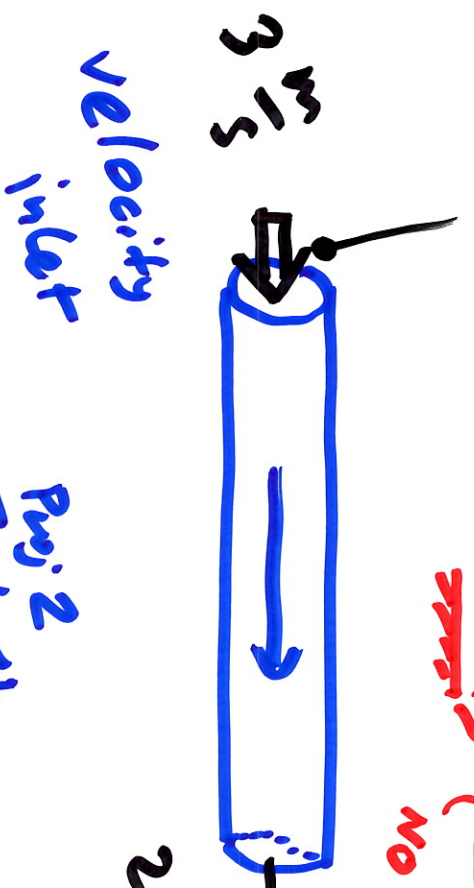
✓ backflow

pressure outlet ✓ ✓ ✓
outflow ✓ ✓ ✓

①
 no backflow

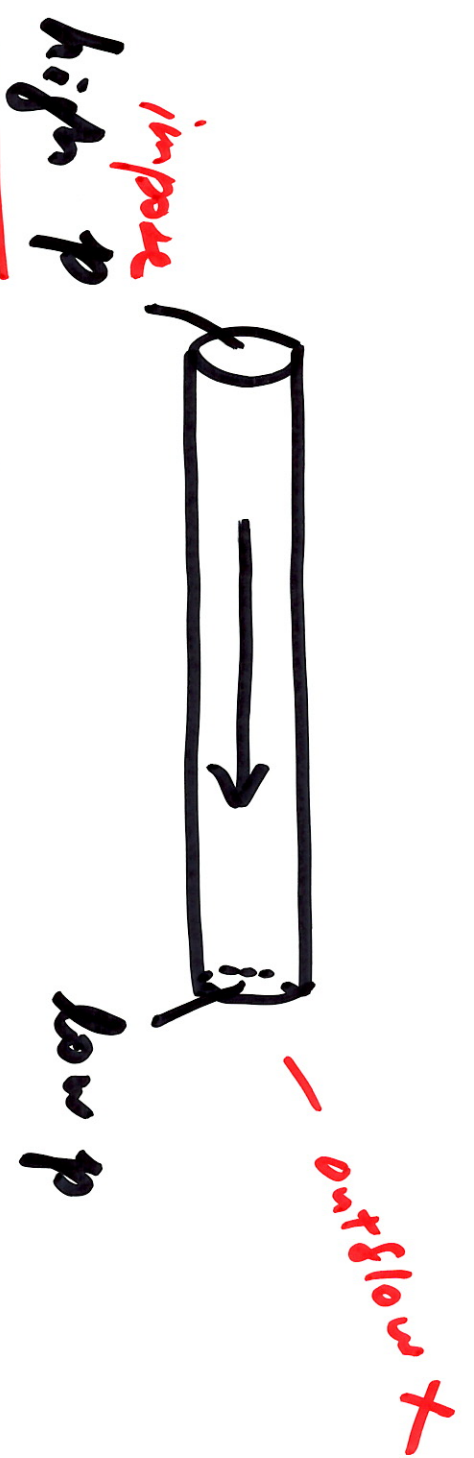
velocity if pressure is not fixed

~~velocity outlet~~



Proj 2 Task 1b

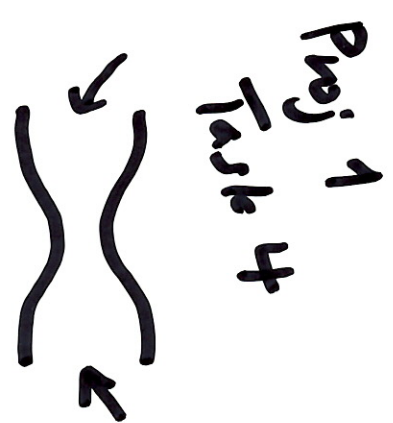
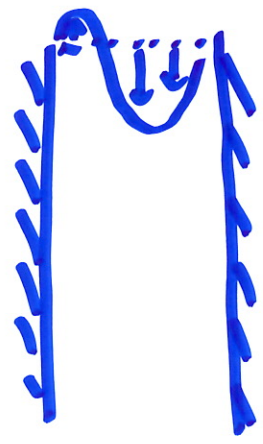
vents far



imposing pressure,
not velocity

⇒ No constraint
on the structure
or the velocity

2-way traffic
allowed



Proj 1
Task 4