HW11 Answer template

Please use these for uploading to Gradescope. Put your final answer in the box provided.

Problem 1

. Re 20.839 41 V

0.839

$$F \approx \frac{6\pi}{5} \cdot (4 + \frac{a}{b}) \cdot \text{MVb} \rightarrow 4 + \frac{a}{5} = \frac{5F}{6\pi} \times 7$$

- 14.8 ~~~

COA = 8.5 m2 V = 3572 mi = 159.7 mc P=1,225 kg

F= CD= r3 H= CDH= 2 r2 = SMASANAN

REFUE 249609 189.2 28

P=Fv= 132751.2 . 189.7 = 21198019 W. 0.001341 hp

= 28405 hp

8P10.05 (P- 33)

2.84 x104 hp

1

a transfer

8.57 50

(a)

7 12 (BCLA)

L=67000N P=0.412S Ap=32~

2219.9 = = 491.8 =i

492. mi

(b)

D= 60.2042A

(D= 0.015

D= 4788 N m

DV=1052210 W. THS.7w=1411 hp

1.41 X103 hp

15.8%

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Problem 5, continued

Pg 5 pr. 9 - 0.08 - 69.

$$\frac{P_g}{V} = mg \cdot 0.08 \qquad F = \frac{P_{tot}}{V} - \frac{P_g}{V} \rightarrow C_D = \frac{P_{tot}}{V} - mg \cdot 0.08$$

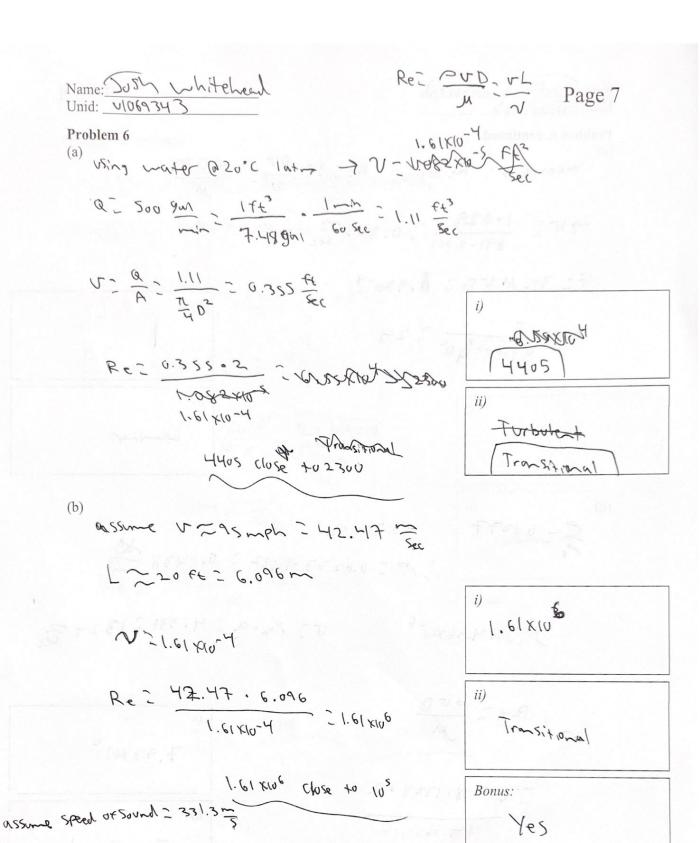
$$0.5 = V^2 A$$

V= 2.64 = NO

Re : Prh assume L = 1.5 m

Sx10-2 = 5.05×102

Transfirmal



Ma= 42.47 = 0.128 60.3

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Problem 6, continued

F= 37CMUD= 8.9 XW-4

CD = E = 203 = 574

P = 0.0277 Po = 1.582

: P = 0.0277.1.582 = 0.0438 - 3

M = 14.56×10-6

V= Ma. a = 4.331 = 1324 =

Re- OLD

- 0.0438.1324·2

14.56×10-6

(i) 7,97×10

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Problem & continued

(e)

i)

0.141

ii)

Laming

Bonus:

Yes