HW6 Answer template

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

Problem 1

0.776 m

Name: Dosh whitehead Unid: V1069343 Problem 2 Velocity? Rem = Rea Rem = 997-0.08 = 2 = 1. 60×105

= ReA = 1.23=1.5.00

Page 2 Re-PDW R-997 FD M. = WARNA MA= 1.78740-5 Kg

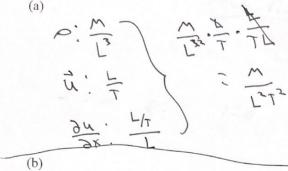
1. 2 1.60×10 -1.78×10 5 -1.539

1.54 = Sec

Drag force?

(D = CDA (D = P = A) (D = 2.5 - 1 (0.08) 2 0,4989 = 2.F 7 E = (0. 6 . 12. 4. 4. - 1.586

1.29 N



$$\frac{3x34}{91} > \frac{9x}{3} \left(\frac{94}{91}\right) > \frac{1}{9} \left(\frac{94}{91}\right) > \frac{1}{9} \left(\frac{94}{91}\right) > \frac{1}{9} \left(\frac{1}{9}\right) = \frac{1}{1} \cdot \frac{1}{$$

(d)

$$\frac{3f}{3n} \cdot \frac{1}{7}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

$$\frac{1}{2}$$

Name: 205h whitehead Unid: Ulogazha

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Problem 4
$$P(D, P, V, \omega)$$

$$5 - 3 = 2\pi \text{ graves}$$

me

(a)

$$\Pi_{2u} = \Pi_{2u} = \frac{1200.09}{60} = 1.5$$

14.4 rotation

(b)

256. KW

Problem 6
(a)
$$L = \begin{cases} 2 & L^2 & L^2 & T \end{cases}$$

$$T = \begin{cases} 2 & L^2 & M & M \\ T^2 & M & L \end{cases}$$

Mother V(KA, P, t, or, M)

4 - (L2, L7, T7, T7)

T = (T) . 7 . (L2) c

M, = Vt

(c) Min = Vt = 6 = . 21 sec = 56,3

Arbitrarily chaose

56.3

$$T(D,M,P,\overline{C}) \rightarrow \frac{M}{LT^2} \left(L, \frac{M}{LT}, \frac{M}{L^2}, \frac{L}{T}\right)$$

$$5-3-2 \checkmark$$

True

1-34-1-3 A-13 +4X

1 - 524 - x 34 - 4, W - - x

1-12-X

$$\frac{9x}{9n} + \frac{9x}{9n} = \frac{9x}{9}(1) + \frac{9x}{9}(x) = 0$$

Problem 7 (continued)

(c)

(d)

If the System has geometrically and dynamically Similar (and it is to be modeled.

The 75 has sphere has similar geometry as the 15 mm sphere. Depositally

Dynamic Similarity would have to be assumed

True

It there is a sudden expansion of Pipe then the

False