

Buku Jurnal Praktikum

Fisika Dasar

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laporan praktikum fisika

No.

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J Tabel hasil percobaan

Benda	Diameter (m)	Volume (m ³)	Berat (N)	F _{max} (N)	V _{Pascali}	Veksi	ΔV
Ronggong	0,065	$1,18 \cdot 10^{-3}$	0	2,891	$295 \cdot 10^5$	0	0
Kelereng	0,07	$1436 \cdot 10^{-3}$	3,43	10554,6	$1679 \cdot 10^5$	$3 \cdot 10^{-3}$	$7,77 \cdot 10^5$
Benda Aduak 2	0,035	A.S.	0	0	0	0	0

J Analisis

| 20140191 |

Prinsip archimedus menyatakan bahwa gaya apung ke atas pada benda yg rendam dalam cairan, baik yg direndam keseluruhan atau sebagian, sama dengan berat cairan yg dipindahkannya, prinsip archimedus adl hukum fisika yg mendukung bagi merambat fluida

Rumus :

$$\text{Volume} = \frac{\pi}{8} \pi r^3$$

$$\text{Berat} = m \times g$$

$$F_{\text{max}} = \text{Berat} \times g$$

$$V_{\text{Pascali}} = \frac{F}{\rho \times g}$$

$$Veksi = massa air tumpah$$

$$\Delta V = L V_{\text{Pascali}} - V_{\text{2kg}}$$

Lampiran

1) Volume $\rightarrow V = \frac{4}{3} \pi r^3$; $V_1 = \frac{4}{3} \cdot 3,14 \cdot (6 \cdot 10^{-3})^3 = 1,18 \cdot 10^{-3}$

$$V_2 = \frac{4}{3} \cdot 3,14 \cdot (7 \cdot 10^{-3})^3 = 1436 \cdot 10^{-3}; V_2 = \frac{4}{3} \cdot 3,14 \cdot (3,5 \cdot 10^{-3})^3 = 17,95 \cdot 10^{-3}$$

2). Berat Benda $\rightarrow w = mg$; $w = 0$; $w_2 = 3,43$; $w_3 = 0$

 $m_2 = 0,35 \text{ kg}$
 $m_3 = 0 \text{ kg}$

3). F_{\max} (gaya angkat) $\rightarrow F_{\max} = Pg - V = (\text{menyapung})$

 $F_{\max} = 1000 \cdot g \cdot \rho \cdot \frac{1}{4} \cdot (1,18 \cdot 10^{-3}) = 2,89 \text{ N}$
 $F_{2\max} = \cancel{w_x} + \cancel{w_F} \quad (1436 \cdot 10^{-3}) = 1055 \text{ N}, 6 \text{ N}$
 $F_{3\max} = w_x - w_F \quad (\text{tenggorok}) \rightarrow w_x > w_F$
 $= 0 - 0$
 $= 0 \text{ N}$

4) V_{predik}

 $V_1 = \frac{1}{4} V_B = \frac{1}{4} \cdot 1,18 \cdot 10^{-3} = 0,000295$
 $V_2 = \frac{3}{4} V_B = \frac{3}{4} \cdot 1436 \cdot 10^{-3} = 1,077$
 $V_3 = 0 \text{ (Pb)} \quad P_r \text{ dengan rana} = 07$

5. V_{eks}

$V_1 = 0 \text{ m}^3$

$V_2 = 3 \cdot 10^{-5} \text{ m}^3$

$V_3 = 0 \text{ m}^2$

53

6. $\Delta V = V_{\text{predik}} - V_{\text{eks}}$:

$\Delta V_1 = 295 - 0 = 0$

$\Delta V_2 = 1077 \cdot 10^{-5} - 3 \cdot 10^{-5} = 7,77 \cdot 10^{-5}$

$\Delta V_3 = 0 - 0 = 0$