

Tutorial Name: Fluid Pressure and Flow

Assignment 1

1. Note the change in the values of pressure for the given values of depth.

Fluid Density	Depth	Pressure
Water 1000 Kg/m³	1 m	111.0 kPa
	2 m	120.8 kPa
	3 m	130.3 kPa
Gasoline 700 Kg/m³	1 m	
	2 m	
	3 m	
Honey 1420 Kg/m³	1 m	
	2 m	
	3 m	

2. Explain your observation.

Assignment 2

Observe the change in speed and pressure when, fluid density is changed to gasoline and honey.

Assignment 3

A Tank of cubical shape is filled with honey to a height of 10.42 m.
Find the pressure exerted by the honey at the bottom of the tank.
The atmospheric pressure is 102.3 kPa. Density of honey is 1420 kg/m^3 .
Take $g = 9.81 \text{ m/sec}^2$.

Assignment 4

A Tank of cubical shape is filled with gasoline to a height of 10.42 m.
Find the pressure exerted by the gasoline at the bottom of the tank.
The atmospheric pressure is 102.3 kPa.
Density of gasoline is 700 kg/m^3 . Take $g = 9.81 \text{ m/sec}^2$.