

Physics 151 Class Exercise: Fluids 2

1. A solid block is suspended from a spring scale. When the block is in air the scale reads 35.0 N, when immersed in water the scale reads 31.1 N, and when immersed in oil the scale reads 31.8 N. **(a)** What is the density of the block? **(b)** What is the density of the oil?

Answer:	
Answer:	

2. A river narrows at a rapids from a width of 12 m to a width of 4.0 m. The depth of the river before the rapids is 2.7 m; the depth in the rapids is 0.85 m. Find the speed of water flowing in the rapids, given that its speed before the rapids is 2.2 m/s. Assume the river has a rectangular cross section.

Answer:	
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