



PHYSLETS ANSWER SHEET

FLUIDS 3

Fluids / Animation 3

Name _____ Class _____

<Show all work on calculations. Include proper units. Explanations require complete sentences.>

1) Which liquid (oil or water) is denser? Explain how you know.

_____ 2) What is the density of the block of wood? (choose one)

- A) More dense than the water and the oil
- B) Less dense than the water, but more dense than the oil
- C) Less dense than the oil, but more dense than the water
- D) Less dense than the water and the oil

_____ 3) Which animation(s) show the buoyancy force on the block changing as the oil is first drawn away?

- A) Animation A
- B) Animation B
- C) Animation C
- D) Animation D

_____ 4) Which animation(s) show the buoyancy force on the block remaining constant as the oil is first drawn away?

- A) Animation A
- B) Animation B
- C) Animation C
- D) Animation D

_____ 5) Which of the following choices is/are true about the buoyancy force on the block as the oil is drawn off?

- A) The buoyancy force is equal to the weight of the block
- B) The buoyancy force is equal to the weight of the water displaced
- C) The buoyancy force is equal to the weight of the oil displaced
- D) The buoyancy force is equal to the sum of the weights of the water and oil displaced
- E) None of the previous are true

_____ 6) The animation that is “most physical” (i.e. best depicts what would happen to the wood block in a real experiment is: (choose one)

- A) Animation A
- B) Animation B
- C) Animation C
- D) Animation D