

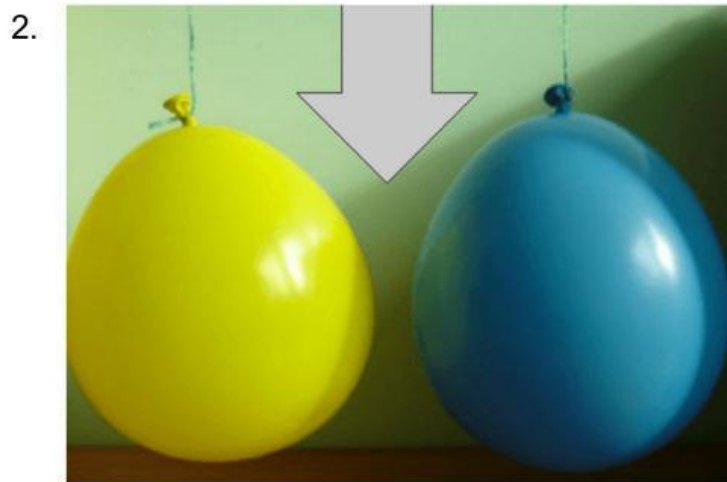
**8.1 Bernoulli's Principle**

Total questions: 26

Worksheet time: 28mins

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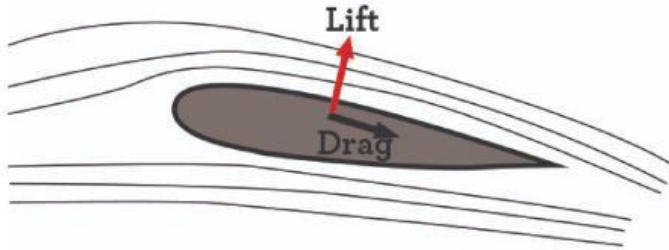
1. According to Bernoulli's Principle, when the wind speed is high, wind pressure is \_\_\_\_\_
- a) high
  - b) low
  - c) not enough information
  - d) None of the above



If you blow air between these two balloons, the balloons would touch each other. This is because the pressure between the balloons \_\_\_\_\_.

- a) Increases
- b) Decreases
- c) Stays the same

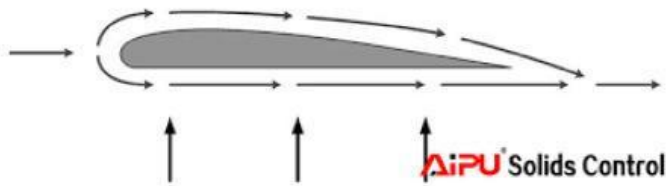
3.



Why is the top of an airplane wing curved?

- a) To create an area of low pressure above the wing
- b) To create an area of high pressure above the wing
- c) To create equal pressure above and below the wing
- d) To make the wing look really cool

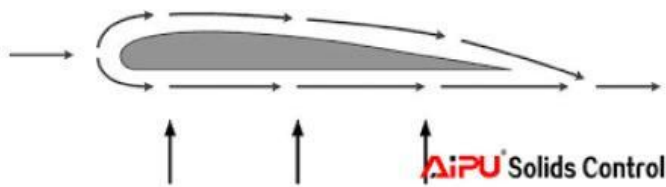
4.



The design of a wing:

- a) causes the air above a wing to move faster than the air below the wing
- b) helps create lift
- c) creates a low pressure area above the wing
- d) all of these answers are correct

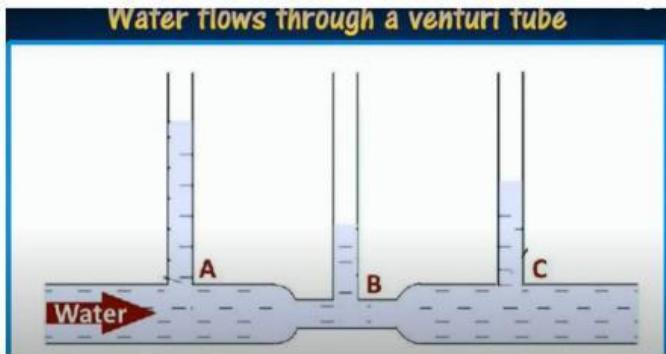
5.



Air travels \_\_\_\_\_ over the top of a wing.

- a) faster
- b) slower
- c) doesn't move at all
- d) the same speed as

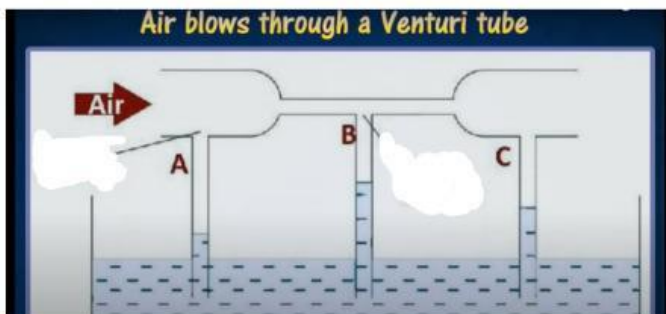
6.



The water flows through a venturi tube. Which part has the lowest pressure and highest velocity?

- a) A
- b) B
- c) C

7.



The air blows through a venturi tube. Select the correct answer.

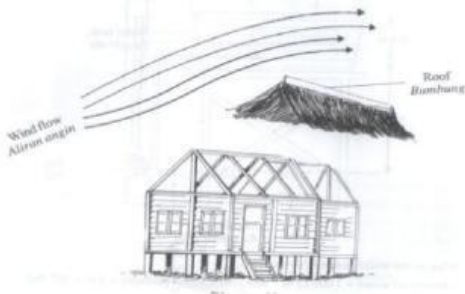
- a) Pressure at C > Pressure at B > Pressure at A
- b) Pressure at B > Pressure at A > Pressure at C
- c) Pressure at A > Pressure at C > Pressure at B
- d) Pressure at A > Pressure at B > Pressure at C

8.

### BERNOULLI'S PRINCIPLE

1. Daily situation :

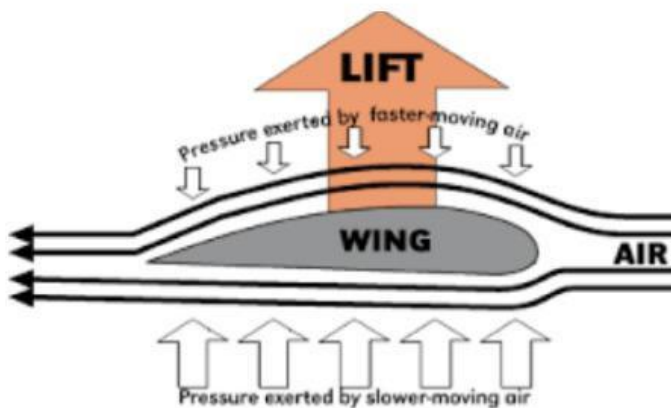
- a) The roof of a house being lifted by strong winds.



The roof of a house being lifted by strong winds. This is because .....

- a) Higher pressure at the below of roof      b) Lower pressure at the top of roof  
c) Lower velocity at the top of roof      d) Higher velocity at the below of roof
9. According to Bernoulli's Principle, when the wind speed is high, wind pressure is \_\_\_\_\_  
a) high      b) low  
c) not enough information      d) None of the above
10. According to Bernoulli's Principle, when the wind speed is low, wind pressure is \_\_\_\_\_  
a) high      b) low  
c) not enough information      d) None of the above

11.



The faster a fluid moves, the lower the pressure is in the moving fluid compared to the fluid not moving as fast. This is called

- a) Newton's Laws      b) Bernoulli's Principle  
c) Wright Brothers Principle

12. What is the best depiction of Bernoulli's principle below?
- a) As the pressure of a fluid decreases, the speed increases      b) As the pressure of a fluid increases, the speed increases
- c) As the pressure of a fluid decreases, the speed decreases
13. Due to Bernoulli's principle, the pressure is \_\_\_\_ above an airplane's wing than below it.
- a) Lower      b) Higher
14. Bernoulli's Principle is used to explain the concept of \_\_\_\_.
- a) lift      b) chemical reactions
- c) the engineering design process      d) None of these things
15. Objects tend to move toward areas of \_\_\_\_\_.
- a) higher pressure      b) lower pressure
- c) chemical changes      d) physical changes
16. If the pressure is **higher** above the wing and **lower** below the wing, what will the airplane do?
- a) lift      b) sink
- c) Neither lift or sink
17. If the pressure is **lower** above the wing and **higher** below the wing, what will the airplane do?
- a) lift      b) sink
- c) Neither lift or sink
18. If the pressure is **the same** above the wing that it is below the wing, what will the airplane do?
- a) lift      b) sink
- c) Neither lift or sink



19. What is Viscosity?

a) A fluids colour.

b) A fluids temperature.

c) A fluids resistance to flow.

20. If a liquid has high viscosity, it probably has:

a) strong resistance to flow

b) weak resistance to flow

21. Which of the following liquids is viscous?

a) honey

b) water

c) soy sauce

d) cooking oil

22. **A substance that flows quickly has \_\_\_\_\_.**

a) low viscosity

b) high viscosity

23. Liquids with very low viscosity ,flow very \_\_\_\_\_.

a) fast

b) not at all

c) slow

d) whenever it wants

24.

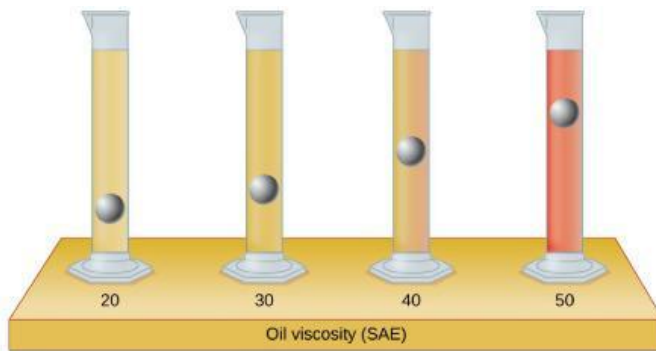


Honey has a...

a) low viscosity

b) high viscosity

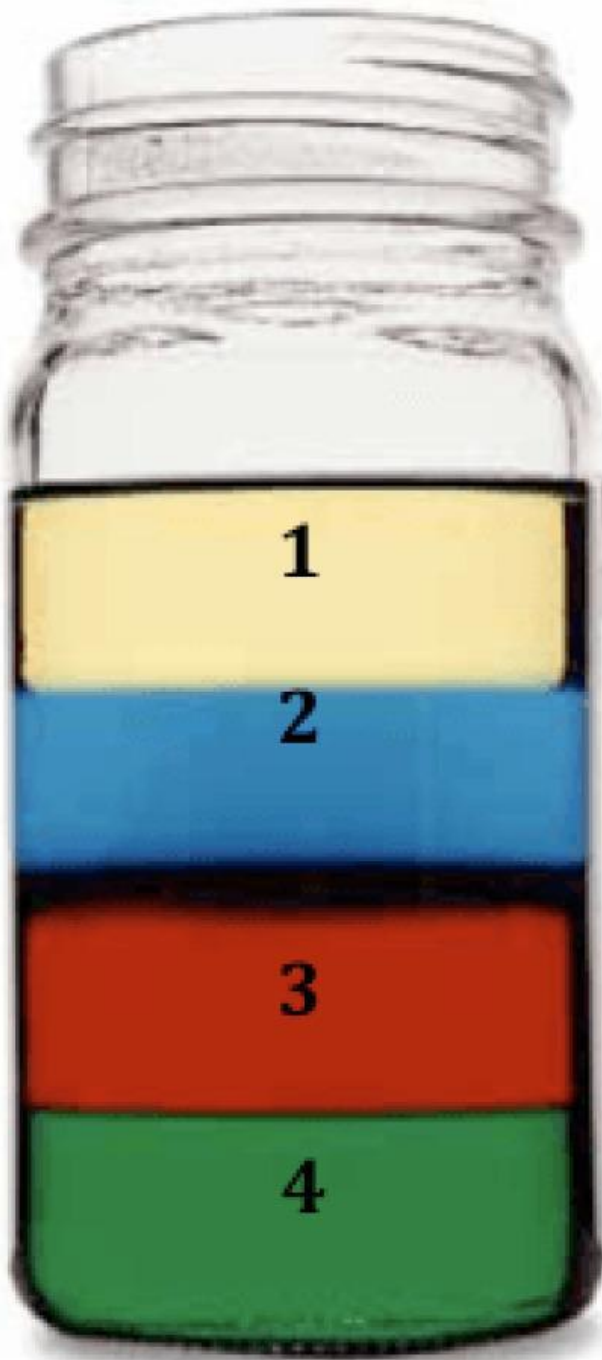
25.



Which graduated cylinder has the highest viscosity

- a) The graduated cylinder with the ball at 20mL.
- b) The graduated cylinder with the ball at 30mL.
- c) The graduated cylinder with the ball at 40mL.
- d) The graduated cylinder with the ball at 50mL.

26.



Put the liquids in order from most dense to least dense?

a) 4, 3, 2, 1

b) 1, 2, 3, 4

c) 3, 4, 2, 1,

d) 4, 3, 1, 2