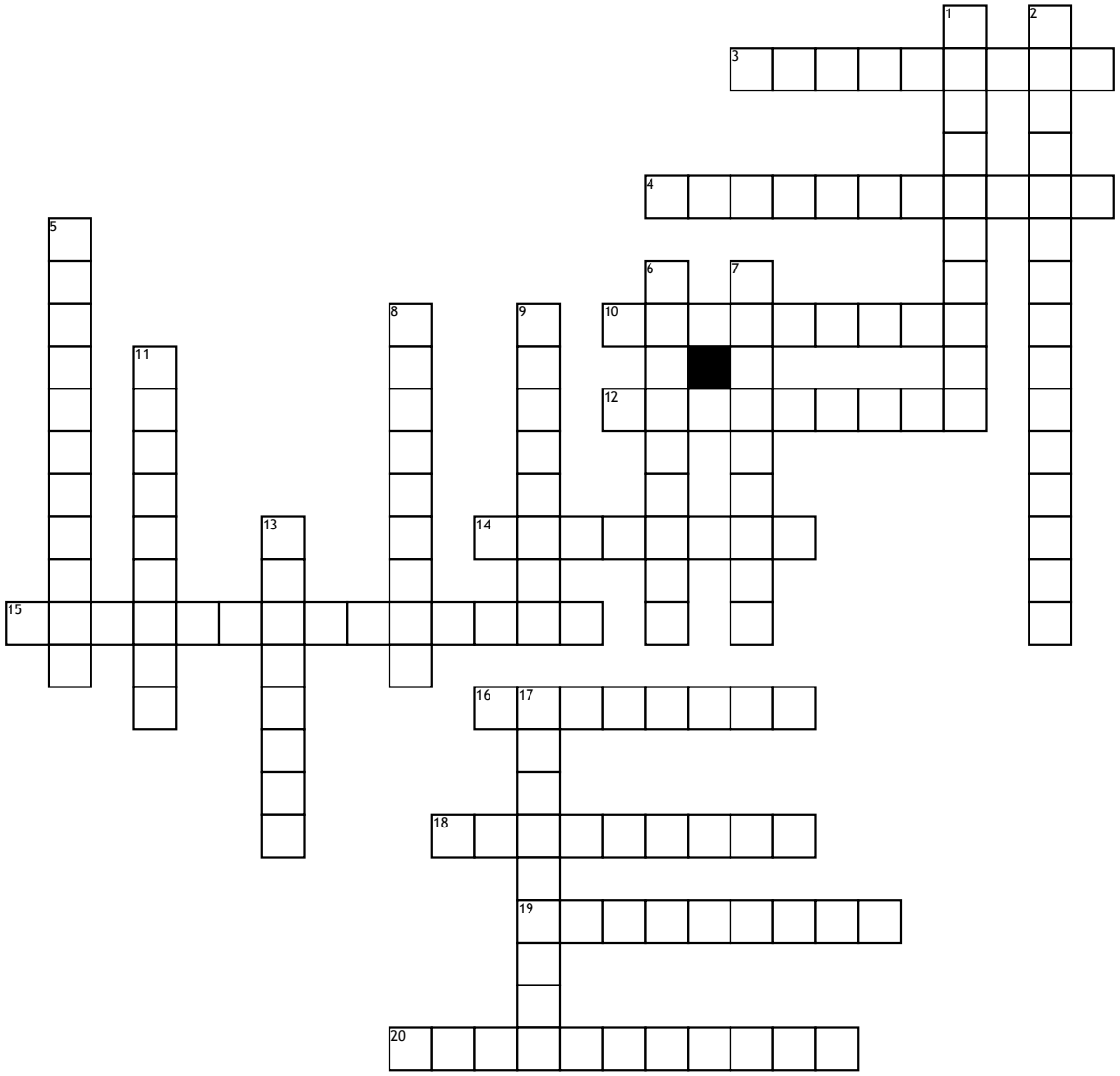
Name: _____ Date: _____

# Hemodynamics_Fundamentals of Fluid Mechanics



**Across**

**3.** Change in biological behavior of some cells such as _____ in response to stress ma result in thrombus formation

**4.** In a flow has periodicity, but lacks a net forward or reverse output, the flow is said to be?

**10.** Simplification of the navier Stokes equations yields the expression commonly known as?

**12.** Characterization of pulsitility in blood flow is best represented by the _____ parameter

**14.** When considering fluid flow, it is said to be _____ if the viscosity of the fluid is negligible

**15.** Flow is said to be _____ once the velocity profile becomes constant

**16.** _____ number is the ratio of inertial to viscous forces in a fluid.

**18.** Local pathophysiological vascular dilations are known as?

**19.** When a fluid encounters a stationary object in its flow field, the boundar layer_____

**20.** Vasoactive compounds secreted by cells due to stress often result in vessel_____

**Down**

**1.** pressure originates from the left ventricle travels out as a wave due to the _____ of the arteries

**2.** High levels of shear is present at _____ lesions and artificial heart valves

**5.** The _____ of vessel walls may be damaged in the presence of excessively high levels of shear stress?

**6.** Damage of RBCs , particularly due to stress is known as _____

**7.** The amount of of turbulence present in a flow field is quantified by the turbulence_____

**8.** Flow that exhibits periodic behavior and has a net directional motion over the cycle is said to be?

**9.** The velocity profile of a fluid as it enters a tube continues to change over the distance of its_____ length

**11.** Laminar flow is characterized by a _____ boundary layer

**13.** A _____ is characterized by the ruduction in the lumen of a vessel

**17.** Turbulent flow is undesirable in blood circulation because of _____ load on the heart