

Name: _____

Date: _____

Kinematics

Across

5. The velocity of an object at a single moment of time; usually referred to as just “velocity”; is a vector; measured with the unit meters/second (m/s)
 8. displacement/time=
 10. A defined origin and axes that specify the directions (N, S, E, W; left, right, up, down) in a problem
 12. An object’s displacement divided by the length of time travelled; is a vector; measured with the unit meters/second (m/s)
 13. A graph of motion with velocity on the y-axis and time on the x-axis; the slope of the line equals the acceleration
 14. Equations that tell the relationship between initial and final velocity, displacement, time, and acceleration; are only valid when acceleration is constant

16. A quantity that has both magnitude and direction

17. $a = \Delta v / \Delta t = v(f) - v(i) / \Delta t$

18. Where an object is located relative to a frame of reference; measured with the unit meters (m)

19. A graph of motion with position on the y-axis and time on the x-axis; the slope of the line equals the velocity

20. $m = \Delta y / \Delta x = y_2 - y_1 / x_2 - x_1$

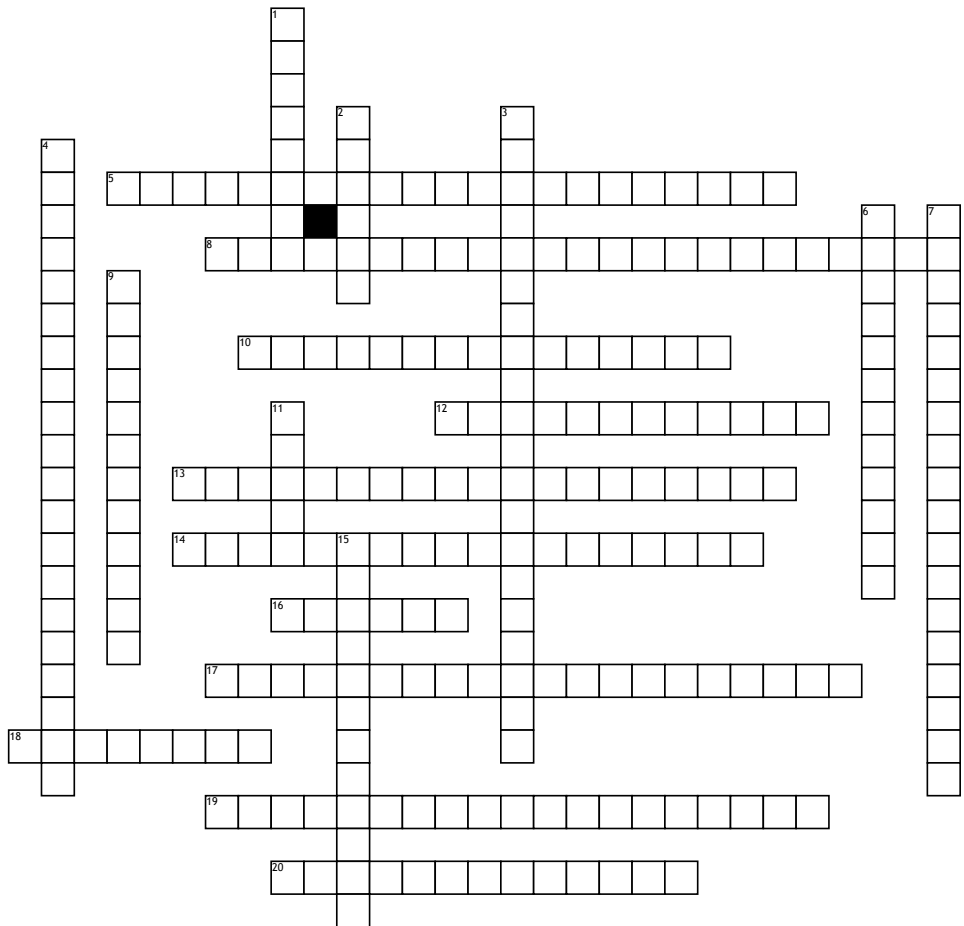
Down

1. The total length of the path travelled; is always a positive number; is a scalar; measured with the unit meters (m)

2. A quantity that only has magnitude

3. $\Delta x = x(f) - x(i)$

4. distance/time=



6. The change in an object’s position from its starting point to its ending point; is a vector that points from the starting point to the ending point; measured with the unit meters (m)

7. The speed of an object at a single moment of time; equals the magnitude of the instantaneous velocity; usually referred to as just “speed”; is a scalar; measured with the unit meters/second (m/s)

9. How “fast” an object travels; the distance an object travels divided by the length of time travelled; is a scalar; measured with the unit meters/second (m/s)

11. The “steepness” of a straight line on a graph; the change in the y-variable divided by the change in the x-variable; can be positive (uphill), negative (downhill), or zero (horizontal).

15. The change in velocity per unit of time; occurs when an object increases or decreases its speed and/or changes the direction it is moving; is a vector; measured with the unit meters/second² (m/s²) which is equivalent to “meters per second per second”