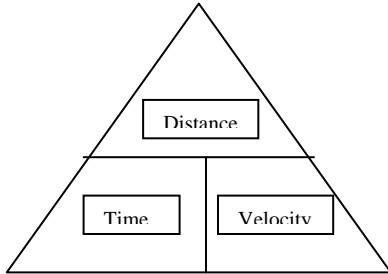


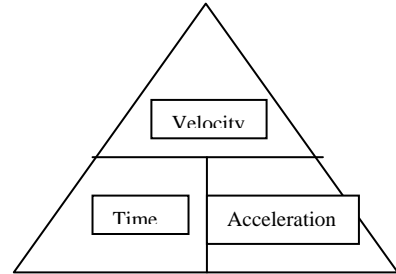
Speed/Velocity/Acceleration Worksheet

Name _____ Period _____ Date _____

Use the following equations to answer the questions.



$$\begin{aligned} \text{Distance} &= \text{Time} \times \text{Velocity} \\ \text{Time} &= \text{Distance} / \text{Velocity} \\ \text{Velocity} &= \text{Distance} / \text{Time} \end{aligned}$$



$$\begin{aligned} \text{Velocity} &= \text{Time} \times \text{Acceleration} \\ \text{Time} &= \Delta \text{Velocity} / \text{Acceleration} \\ \text{Acceleration} &= \Delta \text{Velocity} / \text{Time} \end{aligned}$$

1. If Chris throws the baseball 60 meters in 4 seconds, what is the average speed of the football?

Show your work

Answer

Units

2. An airplane travels 4000m in 16 seconds on a heading of 35° . What is its velocity?

Show your work

Answer

Units

Direction

3. A bicycle is heading West. It goes 5000m in 500s. What is its velocity?

Show your work

Answer

Units

Direction

4. If Justin races his Chevy Camaro South down I-540 for 2560 meters in 60 seconds, what is his velocity?

Show your work

Answer

Units

Direction

5. An ice cream truck is going 25m/s to the East. It accelerates to 40m/s in the same direction over 3s. What is its acceleration?

Show your work

Answer

Units

6. A soccer player is running upfield at 10 m/s and comes to a stop in 3 seconds facing the same direction. What is his acceleration?

Show your work

Answer

Units

7. A turtle accelerates from a stop at 3m/s^2 to the South for 8s. What is the turtle's final velocity? (2pts)

Show your work

Answer

Units

Direction

8. A bullet accelerates from a stop to 1000m/s to the East. It accelerates at 10000m/s^2 in the same direction. How long did it take the bullet to reach its final velocity?(2pts)

Show your work

Answer

Units

BONUS: A tractor starts from a stop and accelerates to 5m/s to the East in 10s. It then slows to a stop in the same direction in 5 seconds. What was the total acceleration of the tractor?