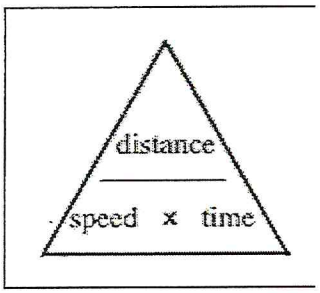
DISTANCE, TIME, SPEED PRACTICE PROBLEMS



You MUST SHOW YOUR WORK.

You can use a calculator but must show all of the steps involved in the problem.

1. A plane travels 395,000 meters in 9000 seconds. What was its speed?

looking for speed
given D = 395,000 m
T = 9,000 sec

$S = \frac{D}{T} = \frac{395000\ m}{9000\ s}$

S = 43.9 m/s.

2. Mr. Kish is trying to catch up with Mr. Krippel in the hallway. If he travels at a speed of 1.7 m/s for 52 seconds, how far will he go? Will he catch up to Mr. Krippel who is 75 meters away? → yes, if he does not move

looking for distance
given S = 1.7 m/s
T = 52 sec

D = S * T
D = 1.7 m/s * 52 sec
D = 88.4 m

3. If I drive to school at 62 mph and I live 23 miles away, how long will it take me to get to school?

looking for time
given S = 62 mph
D = 23 m

$T = \frac{D}{S} = \frac{23\ m}{62\ mph}$

T = 0.37 hours
T = 22.3 minutes

4. You are sleepwalking at a rate of 0.4 m/s down a hallway and the stairs are 4 meters away, if you walk for 15 seconds will you fall down the stairs?

looking for distance
given S = 0.4 m/s
T = 15 sec

D = S * T
D = 0.4 m/s * 15 sec
D = 6 m

yes, I will fall down the stairs

5. If you shout into the Grand Canyon, your voice travels at the speed of sound (340 m/s) to the bottom of the canyon and back, and you hear an echo. How deep is the Grand Canyon at a spot where you can hear your echo 7.4 seconds after you shout? (hint: echo is the time is takes for sound to get there AND BACK)

looking for distance
given S = 340 m/s
T = 7.4 sec

D = S * T
D = 340 m/s * 7.4 sec
D = 2,516 m

* Must divide answer by 2 because echo travels there & back
D = 1,258 m