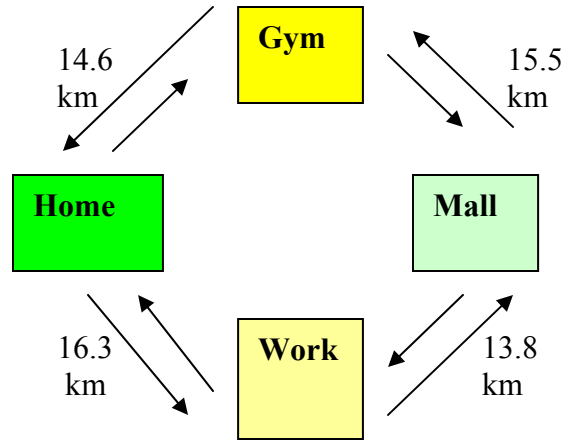


# *Speed, Acceleration and Momentum Problems*

Solve the following problems. You must show your work.

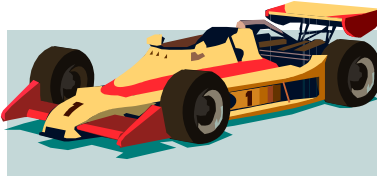
## *Day one*



1. The diagram represents the total travel a student makes on a Saturday. Answer the following questions.
  - a. If the student travels from his home to the gym in 20 **minutes**, what is his speed in **km/hr**? (Don't forget to check units!!!)
  - b. What is the student's speed in **km/min** when he travels from the Mall to Work in 24 **minutes**?
  - c. If the student needed to travel from the gym to work and could travel at a speed of 40 **km/hr**, how long would it take in **hours**? In **minutes**?

## *Day Two*

2.



- a. If the car shown above is traveling at 180 **km/hr** and comes to a complete stop in 3 **minutes**, what is the acceleration of the driver who is using vehicle restraints?
- b. If the car travels 225 **km** in 85 **minutes**. What was its average speed in **km per hour**? (Don't forget to check units!!!)
- c. When the car is moving at 24.4 **m/sec** and has a momentum of 75 **kg · m/sec**. What is the mass of the car?