

### Answer on Question#53368 - Physics - Mechanics - Kinematics - Dynamics

Suddenly you realize that a car is headed toward your car the wrong way in a one way tunnel. To minimize your danger from the impending accident, should you match your speed to that of the other car, go even faster, or slow to stop?

#### Solution:

If you match your speed to that of the other car, the resultant speed of entangled cars will be zero (if masses of both cars are equal) due to the law of conservation of momentum. It means that the whole kinetic energy of both cars turned into destructions. On the other hand if you manage to stop the car, the final speed of entangled cars won't be zero, which means that only a fraction of the whole initial kinetic energy of both cars turned into destructions while the other part conserved as a final kinetic energy of the entangled cars. Thus you should try to stop your car.

Answer: slow to stop.