

Cycle 16 Motion Assessment

2 Chase and Collision problems



Smash up derby! Car A is moving to the right at 5 m/s but speeding up at 2 m/s/s. Car B is 50 m away and heading to the left at 20 m/s.

- a) How long before the crash!
- b) Where does the crash happen?



Relay time! Runner #1 is moving at a constant 8 m/s. When the runners are 6 m apart, runner #2 starts from rest and begins to accelerate at 4 m/s/s.

- a) How long before they are at the same spot?
- b) Where does that happen?