Consider two cars. The first is driving along at constant speed $v_1$. The second is at rest.

At some moment the first car passes the second. At that instant, the second car (initially at rest) starts moving with constant acceleration $a$ in the direction of the first. Eventually, the second car catches up and passes the first.

Calculate the speed of the second car at the moment it passes the first one.

*Hint!* The answer does not depend on the acceleration of the second car.

Answer:_________________