A motorcycle is going 15.0 m/s. The rider then accelerates for 4.35 seconds and covers 100 m. What is his acceleration?

$V_i = 15.0 \frac{m}{s}$

$t = 4.35 s$

$\Delta X = 100 m$

$a = \_\_\_\_ \frac{m}{s^2}$

$\Delta X = V_i t + \frac{1}{2} a t^2$

$a = \frac{2(\Delta X - V_i t)}{t^2}$

$= \frac{2(100m - (15\frac{m}{s})(4.35s))}{(4.35s)^2}$

$\boxed{a = 3.67 \frac{m}{s^2}}$