

1-6. Two cars A and B are traveling in the same direction with an initial distance $d_0 = 200$ m. Car A travels with an initial speed $v_A = 30$ m/s and a deceleration of $a_A = 2$ m/s². Car B travels with a normally distributed speed $v_B \sim N(28, 1^2)$ m/s. What's the probability that car B catch up with car A at the instant that car A stops?

Solution: $P = 0.369$

