Problem 1

• A

Problem 2

• B and D

Problem 3

- Graphs:
  - X vs. t
  - \(a_x\) vs. t

Problem 4

- Same as Version 1

Problem 5

- Same as Version 1

Problem 6

(a) \(V_x(3.00s) = -0.653 \text{ m/s}\)

(b) \(\Delta x(3.00s) = 0.756 \text{ m}\)

(c) Slowing down, since \(V_x\) and \(a_x\) are in opposite directions (opposite signs)

(a) \(V_x(5.00s) = 0.780 \text{ m/s}\)

(b) \(x(5.00s) = 0.855 \text{ m}\)

(c) Speeding up, since \(V_x\) and \(a_x\) are in the same direction (same signs)
Problem 7

(a) $|\mathbf{v}| = 5.10$

(c) $\theta = 78.7^\circ$

Problem 8

--- same as version 1 ---

Problem 9

$V_f = 43.7 \text{ m/s}$

$V_f = 42.7 \text{ m/s}$

Problem 10

$T = \frac{m_B F}{(m_A + m_B)}$

--- same as version 1 ---