Quiz 7

In the movie Abraxas vs. Terminator, Abraxas (m_A=100 kg) is still chasing the Terminator (m_T=80 kg). Currently the Terminator is trying to escape by paddling a canoe (m_C=20 kg) at 4 m/s away from the dock. Abraxas jumps onto the end of the canoe with a horizontal velocity of 10 m/s. What is the velocity of the system? Soon thereafter, the Terminator jumps from the front of the canoe with a relative velocity of 15 m/s. Find the final velocity of Abraxas (sitting in the canoe).

10 m/s

4 m/s

15 m/s
relative velocity