**Chapter 23 – Center of Mass**

[C]

1. vi = (0.290, 0.245) m/s

2. vf = (0.290, 0.242) m/s

3. vcmi = (0.287, 0.242) m/s

4. vcmf = (0.287, 0.242) m/s

[B]

1. Yes, cm v is constant.

2. The equal spacing between marks tells you that the cm velocity is constant.

3. a = 0

4. Fnet =0

[A]

1. Fnetx on blue puck = -0.639 N; Fnety on blue puck = 0.667 N

2. Fnetx on red puck = 0.639 N; Fnety on red puck = 0.674 N

3. The net force on the red puck is the opposite of the net force on the blue puck. The sum of these two forces is zero.