

Young and Freedman, Chapter 8:

4. x: 1.78 kg m/s, y: 0.646 kg m/s
8. (a) 14.5 kg m/s (b)  $7.25 \times 10^3$  N
16. (a) 0.790 m/s (b)  $-2.28 \times 10^{-3}$  J
34. Car: 19.5 m/s, Truck: 21.9 m/s
36. (a) 2.94 cm (b) 866 J (c) 1.73 J [FYI: I computed part (a) last.]
40. (a) Large: -0.100 m/s, Small: 0.500 m/s (b) -0.00900 kg m/s, +0.00900 kg m/s,  
(c)  $-4.50 \times 10^{-4}$  J,  $+4.50 \times 10^{-4}$  J
46. (a) 24.0 m in front of 1200 kg car (b)  $5.04 \times 10^4$  kg m/s (c) 16.8 m/s  
(d)  $5.04 \times 10^4$  km m/s
70. (a) 2.60 m/s (b) 325 m/s
94. Canoe moves 1.29 m to the left