

1) 1,667 m/s; 3,33 m/s

2)  $v_2, v_3 = 6,93 \text{ m/s}; v_{2x}, v_{3x} = 6 \text{ m/s}, v_{2y}, v_{2y} = 3,46 \text{ m/s}, v_1 = 2 \text{ m/s}, v_{1x} = -2 \text{ m/s}$

3) 481,84 m/s

4) 0.58(3)

5) (-1,4065m/s,0), (3,203m/s,0)

6) 4m

7) 58 kg/s, 178,86 kg/s