

22-23 2-D Kinematics Test Answers

Short answer/multiple choice:

1. See video
2. See video
3. See Video
4. 2.24
5. A
6. D
7. D
8. C
9. D
10. E
11. C

River Problems:

- 1a. 11.7m/s
- 1b. 31 degrees E of S (or 59 S of E)
- 2a. $H_x = -50\text{m/s}$ $H_y = 0\text{m/s}$
- 2b. $V_x = 65.5\text{m/s}$ $V_y = -45.9\text{m/s}$
- 2c. $W_x = -15.5\text{m/s}$ $W_y = 45.9\text{m/s}$
- 2d. Wind Speed = 48.5m/s, Wind direction = 71.3 degrees S of W (or 18.7 W of S)

Projectile Problems:

- 3a. 0.452s
- 3b. 26.5m/s
- 4a. 0.766s
- 4c (there is no b). 5.41m
- 5a. 107m
- 5b. 52.5m/s
5. 71.9 degrees