**Physics Mini Unit 4**: Vectors (50 pts)

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| 13 - Nov | 14 - Nov | 15 – Nov | 16 - Nov | 17 - Nov |
| Due: --- | Due: --- | Due: Lab: Treasure | Due: Take a Hike | Due: Crossing the River |
| Lect #1: Vector Addition | WU: Vector Addition | Take a Hike | Lect #2: Relative Vel. | Conceptual Questions |
| Treasure Hunt Part I | Lab: Treasure Hunt |  | Crossing the River | Review Problems |
|  |  |  |  |  |
| HW: --- | HW: Lab: Treasure | HW: Take a Hike | HW: Crossing the River | HW: Review Problems |
| 20 - Nov | 21 - Nov | 22 - Nov | 23 - Nov | 24 - Nov |
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| **Unit 4 Test** |  |  | THANKSGIVING |  |
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* Assignments (20 pts)
* Test (30 pts)

Take a Hike

On a hike you undergo the following displacements:

1.5 miles at 30° North of West

2 miles due East

2.5 miles at 75° West of South

0.5 miles South°

1 mile Northeast

1. How far have you hiked?
2. Where are you with respect to where you started?

(Solve graphically and mathematically)

Selected Answers

Hike: 7.5 miles, 1.04 miles 17° North of West

River: 1. To the right of B 2. 5 m/s 3. 7 s 4. 21 m 5. Diagonally to the left 6. 20 km/h

 7. 3 hours 8. 36 km 9. 48.6° West of North 10. Longer 11. 4.5 hrs

Review: 1. 140 m, 108 m 2. 11.7 m/s @ 31° S of W, 20 s, 120 m 3. 72.1 Newtons @ 34°

 N of W 5. 28.9 N, 34.5 N 6. 4.56 m @ 101° 7. 96.8 m @ 158° 8. 70 m, 10 m, yes