

# Ch 3 HW Assignment: Answers & HW Hints

## Vector Addition

#1, 3, 4, 6, 8, 9, 12a-c, 13, 15,  
19a-d, 23, 25, 29

# Answers

1a. 47.17m

b.  $122^\circ$

3a.  $x = -2.5\text{m}$

b.  $y = -6.9\text{m}$

4a. 11.8m

b. 4.3m

6a. 12.99m

b. 7.5m

8a. 81.1km

b.  $39.6^\circ$

9a.  $(-9i + 10j)\text{m}$

b. 13.45m

c.  $132^\circ$

12a.  $(8i + 2j)\text{m}$

b. 8.25m

c.  $14.04^\circ$

13a.  $(3i - 2j + 5k)\text{m}$

b.  $(5i - 4j - 3k)\text{m}$

c.  $(-5i + 4j + 3k)\text{m}$

15a. -70cm

b. 80cm

c. 141.4cm

d.  $188.13^\circ$

19a. 38.27m

b.  $-37.5^\circ$

23. 2.55km

25. 3.16 units

29.  $d_1 = 8i + 16j$

$d_2 = 2i + 4j$

## Ch 3 #23

This one's just kind of weird because it's not a straight vector addition situation. If you do a good drawing, you should be able to come up with an idea of where the camel is (compared to oasis A) after it walks, and then find how far the camel is from B.

## Ch 3 #25

Just be careful with your setup of an initial equation, writing everything in unit vector notation. Once your equation is correct, the problem's not too hard at all.

## Ch 3 #29

It's a system of equations, and the easiest way to solve it is with elimination. Once the initial two equations are written, it's pretty easy to solve.