

## Assignment 2 Solutions

## Section 12.2

14.  $\langle 3, 6 \rangle$

20.  $|\mathbf{a}| = \sqrt{26}$ ,  $\mathbf{a} + \mathbf{b} = \langle 3, -2, -4 \rangle$ ,  $\mathbf{a} - \mathbf{b} = \langle -9, -6, 2 \rangle$ ,  $2\mathbf{a} = \langle -6, -8, -2 \rangle$ ,  
 $3\mathbf{a} + 4\mathbf{b} = \langle 15, -4, -15 \rangle$

26.  $\sqrt{6}\langle -1, 2, 1 \rangle$

## Section 12.3

10. -20

18.  $\cos \theta = 0.238 \iff \theta \approx 76^\circ$