HW1-3 Soln)



Since north (d) and east (2d) are at right angles, we can use the pythagorean theorem:

 $d^{2} + (2d)^{2} = 450^{2}$ $5d^{2} = 450^{2}$ North: $d = 450/5^{1/2} = 201 \text{ m}$ East: 2d = 402 m

 $tan\theta = 2d/d = 2$ $\theta = arctan(2) = \frac{63^{\circ}}{63^{\circ}}$ east of north