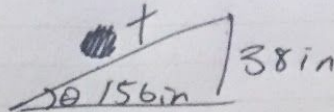


Ben Ridenbayer

3-2. $10\text{ft} \times 12 = 120\text{in.}$

$\frac{120\text{in} - 82\text{in} = 38\text{in}}{t = \sqrt{(38)^2 + (156)^2} = 160.56}$

$\theta = \tan^{-1}(38/156) = 13^\circ$



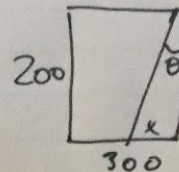
3-5 $A_{\text{total}} = 200 \times 300 = 60,000\text{ m}^2$

$x = 200 (\tan(30^\circ)) = 115.47$

$A_{\text{triangle}} = \frac{1}{2}(200)(115.47) = 11547.01$

$A = 60,000 - 11547 = 48452\text{ m}^2$

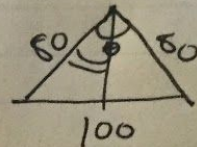
His answer is fairly correct



$\theta = 120 - 90 = 30^\circ$

3-7 $\frac{1}{2}\theta = \sin^{-1}(50/80) = 38.68^\circ$

$\theta = 2(38.68^\circ) = 77.36^\circ$



3-10 $x = 1.5(\cos(45^\circ)) = 1.06$

$P(1.06, 1.06)$

$y = 1.5(\sin(45^\circ)) = 1.06$

3-13 $x = 1.5(\cos(-45^\circ)) = -1.06$

$P(-1.06, -1.06)$

$y = 1.5(\sin(-45^\circ)) = -1.06$

3-16 a. $l = 5\text{ cm}$

$\theta = \tan^{-1}(4/3) = 53.13^\circ$

b. $l = 5\text{ cm}$

$\theta = \tan^{-1}(3/4) = 38.65^\circ$

c. $l = \sqrt{18}\text{ cm}$

$\theta = \tan^{-1}(1) = 45^\circ$

d. $l = \sqrt{34}\text{ cm}$

$\theta = \tan^{-1}(-4/5) = -38.65^\circ$