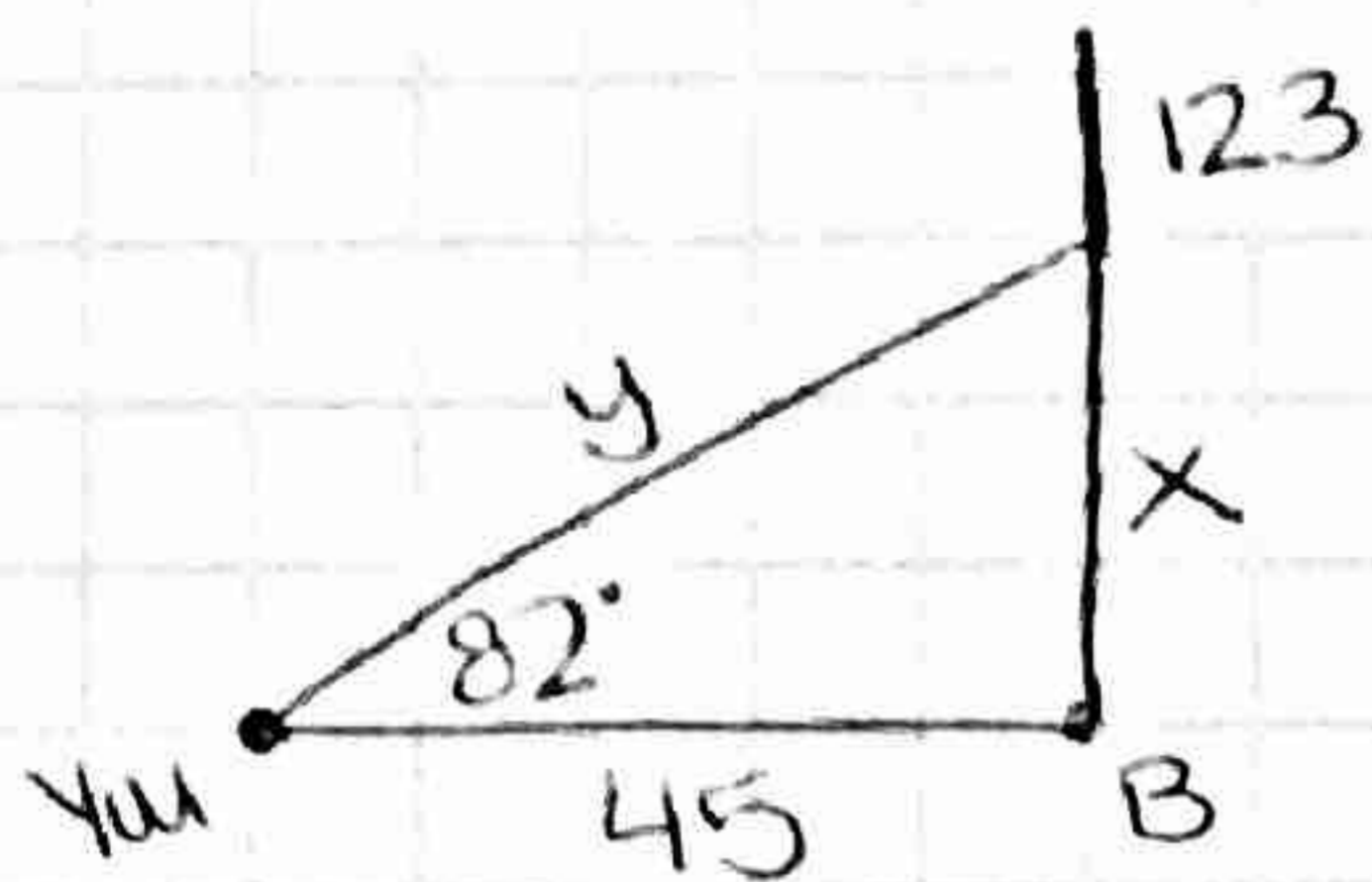


HW 78

p403

4. elevation / depression

65.



$$\tan 82 = \frac{x}{45}$$

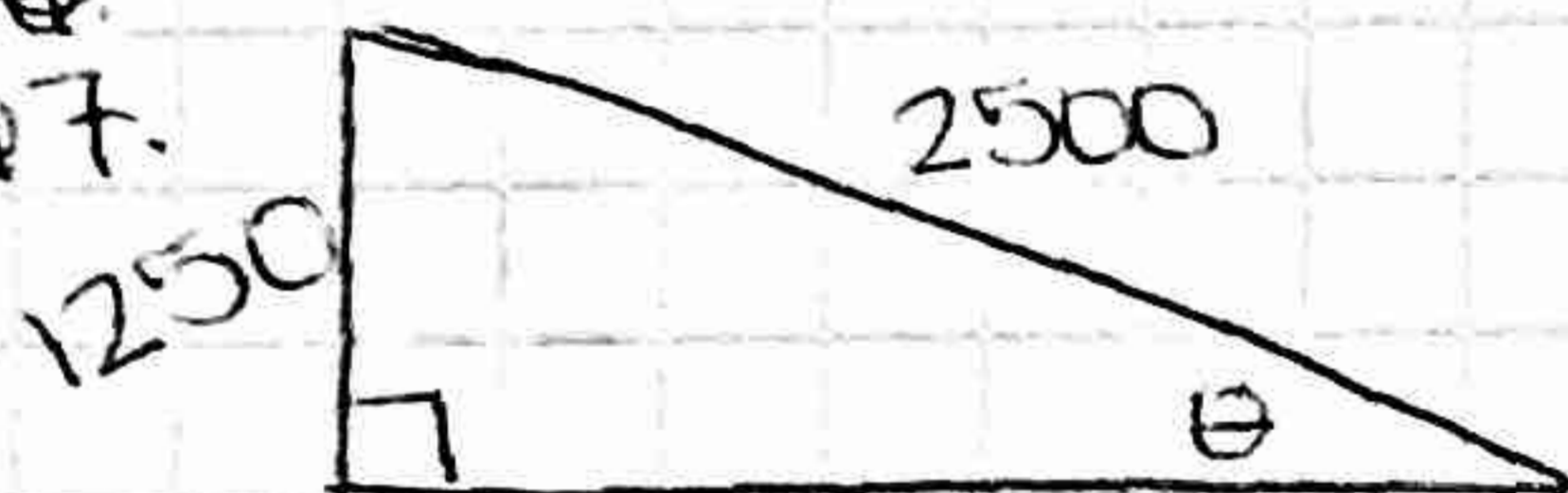
$$x = 320.2$$

$$\text{height: } 443.2 \text{ m}$$

$$\cos 82 = \frac{45}{y}$$

$$y = 323.3 \text{ m}$$

67.



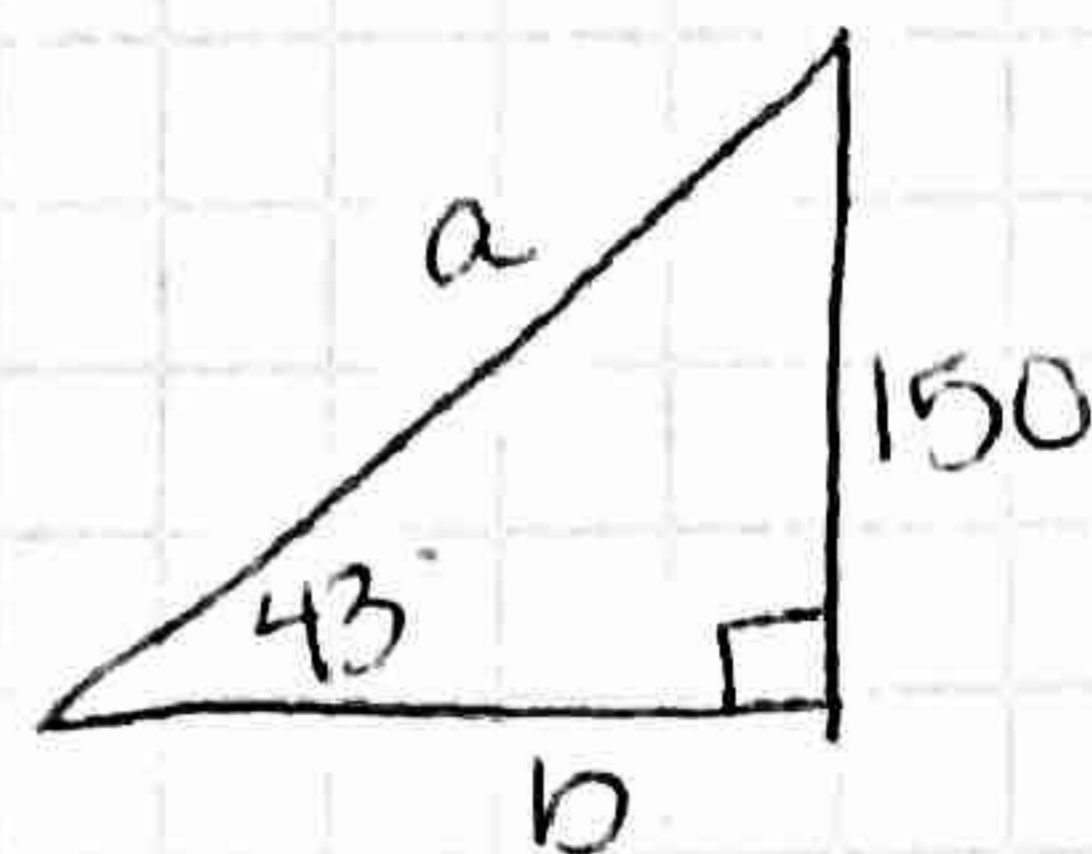
$$\sin \theta = \frac{1250}{2500}$$

$$\theta = 30^\circ$$

$$68. \tan 54 = \frac{w}{100}$$

$$w = 137.64 \text{ ft}$$

69.



$$a) \sin 43 = \frac{150}{a}$$

$$a = 219.9 \text{ ft}$$

$$b) \tan 43 = \frac{150}{b}$$

$$b = 160.86 \text{ ft}$$

$$86. a) \sin 35.4 = \frac{x}{894.5}$$

$$x = 519.33 \text{ ft}$$

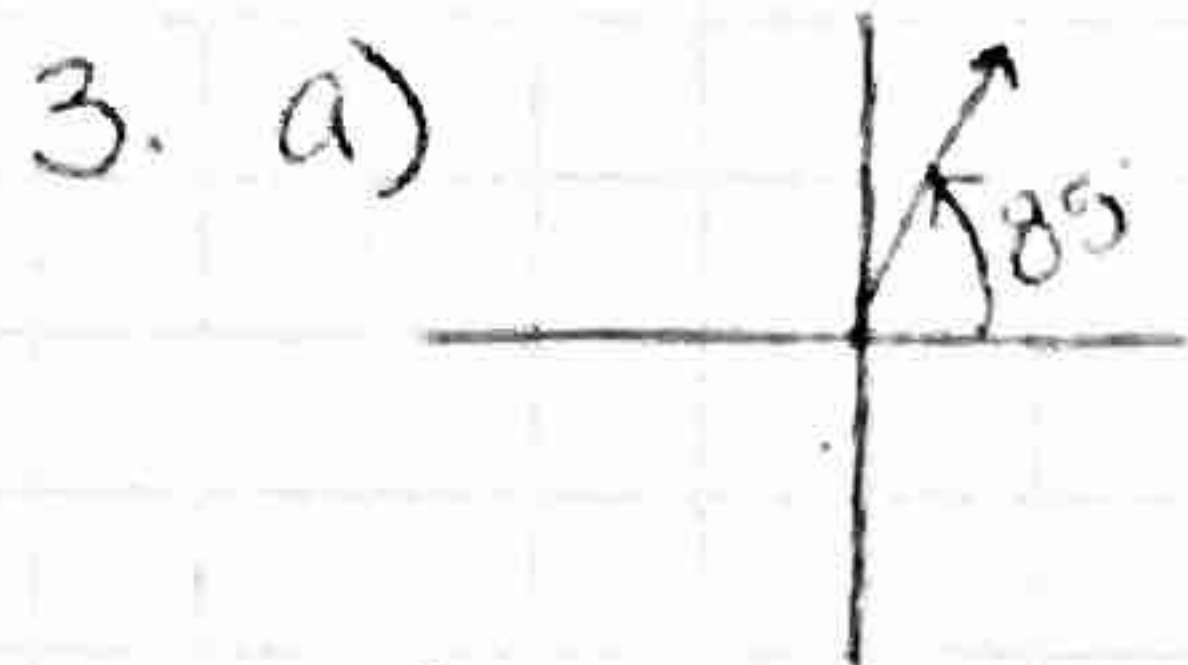
$$b) 1693.5 - 519.33$$

$$1174.17 \text{ ft}$$



QUIZ REVIEW

p524 # 3, 5, 7, 11, 19, 21, 29, 31, 33-35

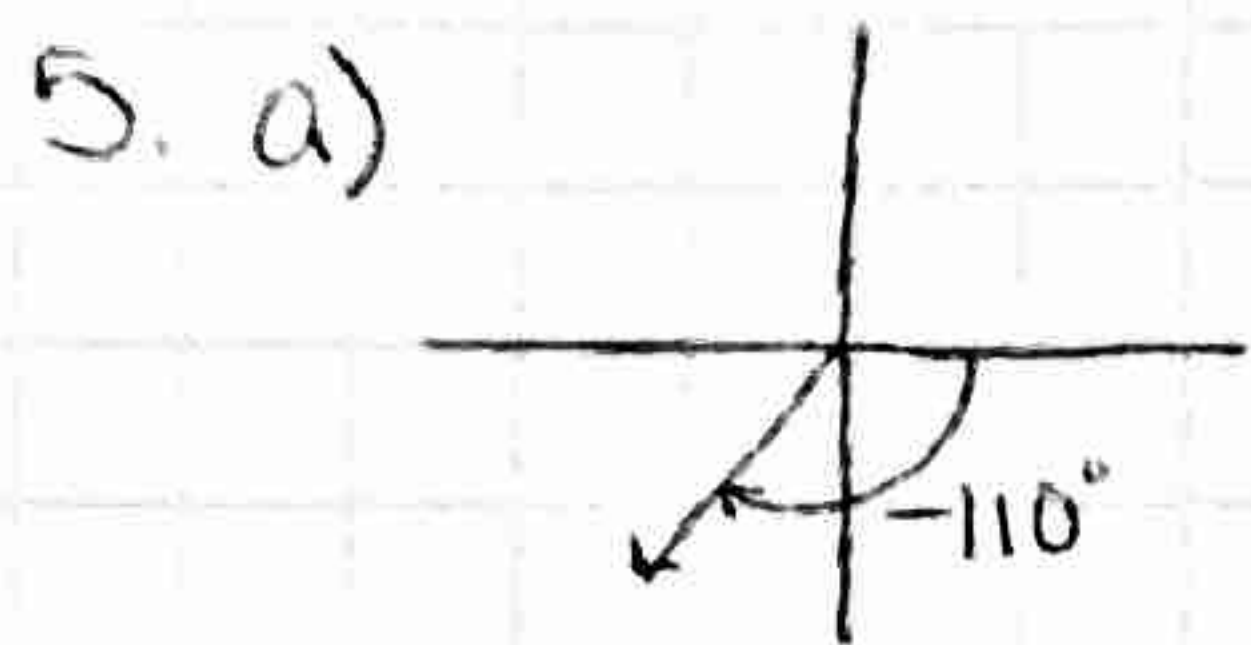


- b) I
c) -275° & 445°

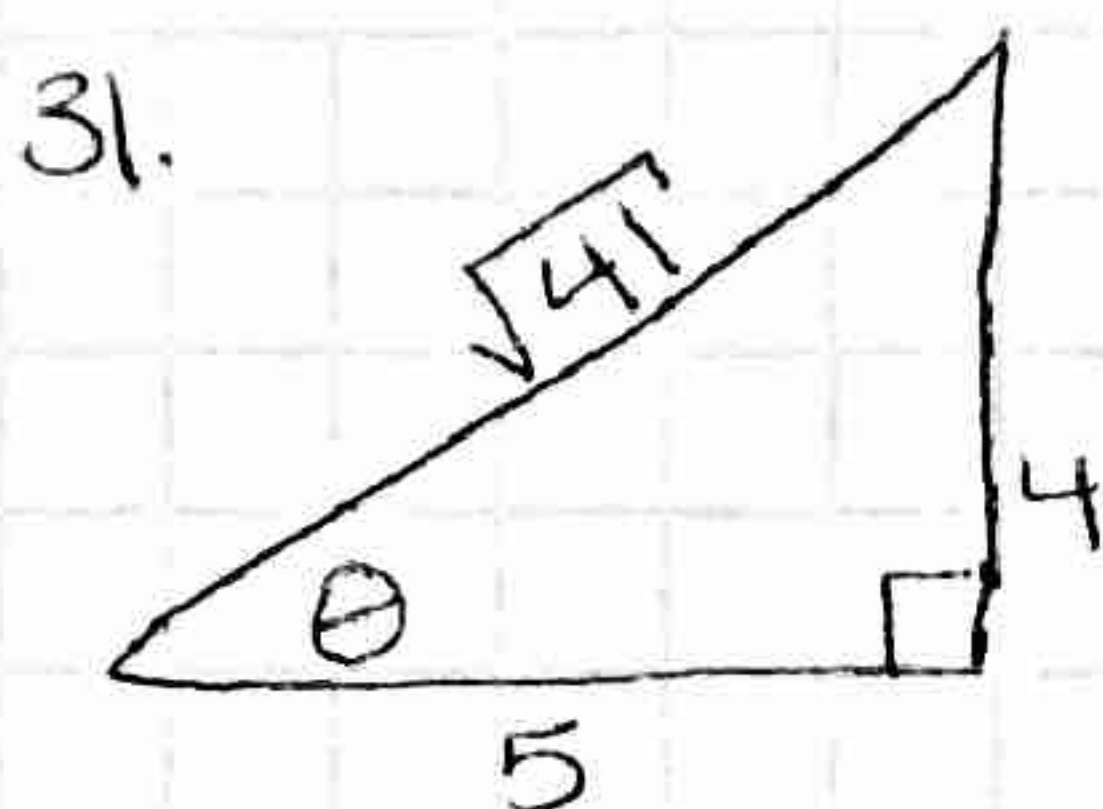
29. $120^\circ \left(\frac{\pi}{180^\circ} \right) = \frac{12\pi}{18} = \frac{2\pi}{3}$

$$S = \frac{2\pi}{3} (18)^2 \left(\frac{1}{2} \right)$$

$$S = \text{in}^2$$



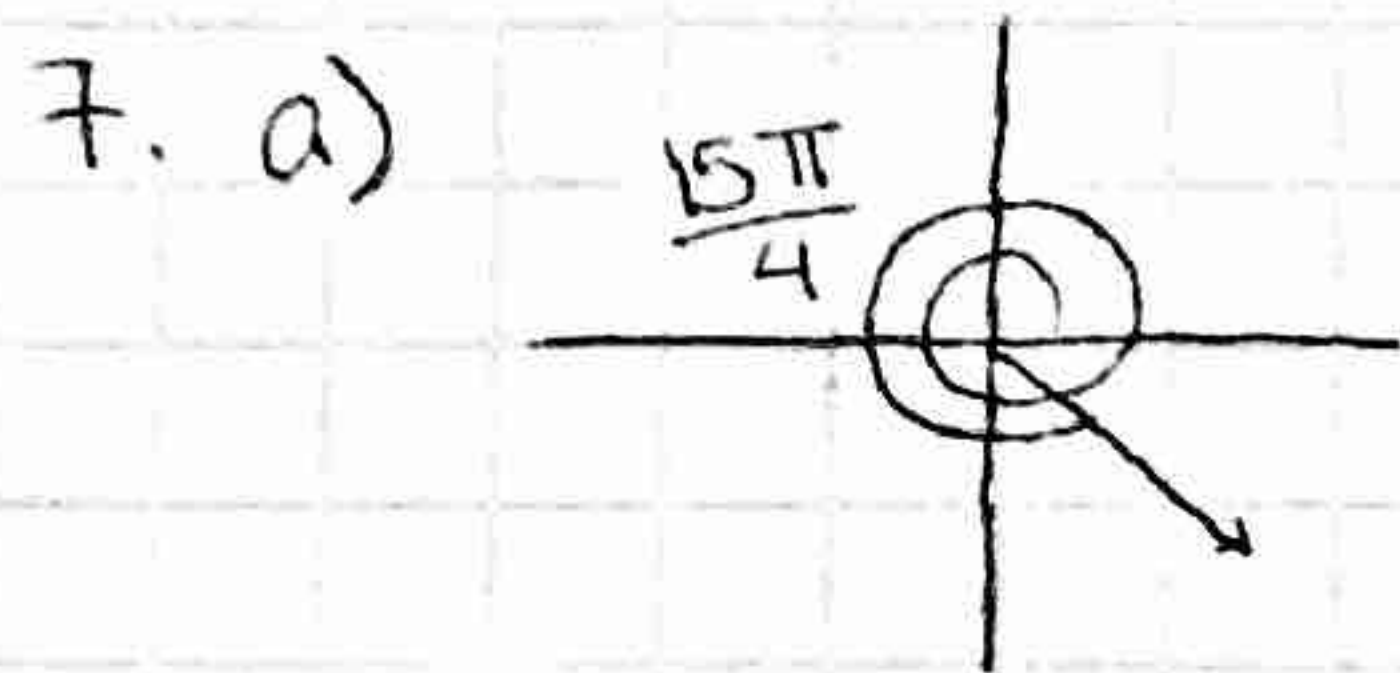
- b) III
c) 250° & -470°



$$\sin \theta = \frac{4}{\sqrt{41}} \quad \csc \theta = \frac{\sqrt{41}}{4}$$

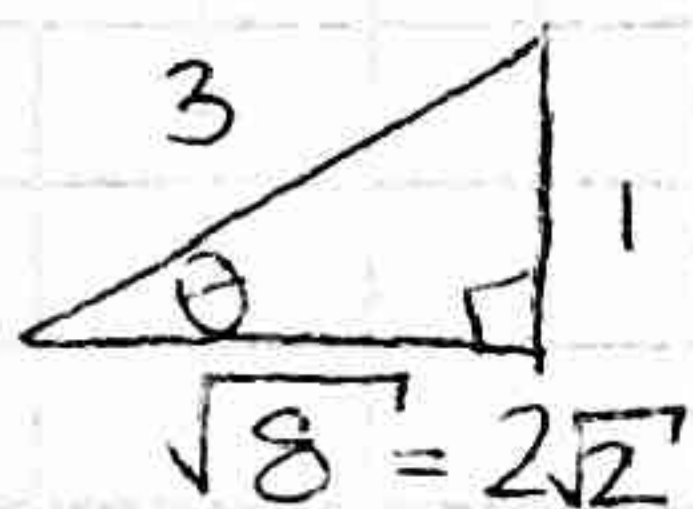
$$\cos \theta = \frac{5}{\sqrt{41}} \quad \sec \theta = \frac{\sqrt{41}}{5}$$

$$\tan \theta = \frac{4}{5} \quad \cot \theta = \frac{5}{4}$$



- b) IV
c) $\frac{7\pi}{4}$ & $-\frac{\pi}{4}$

33. a) $\csc \theta = 3$ b) $\cos \theta = \frac{\sqrt{8}}{3}$



c) $\sec \theta = \frac{3}{2\sqrt{2}}$

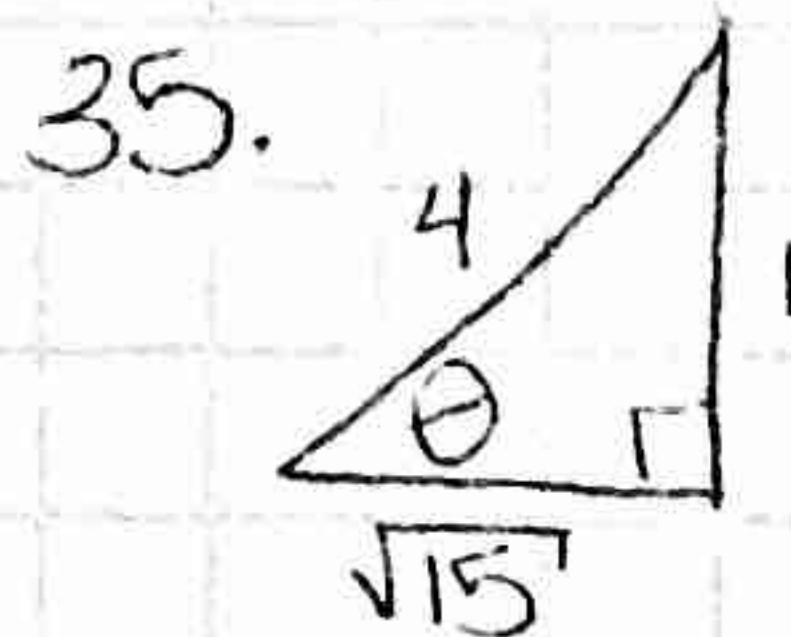
d) $\tan \theta = \frac{1}{2\sqrt{2}}$

11. $450^\circ \left(\frac{\pi}{180} \right) = \frac{45\pi}{18} = \frac{5\pi}{2}$



a) $\cot \theta = \frac{1}{4}$ b) $\sec \theta = \sqrt{17}$
c) $\cos \theta = \frac{1}{\sqrt{17}}$ d) $\csc \theta = \frac{\sqrt{17}}{4}$

19. $\frac{3\pi}{10} \left(\frac{180}{\pi} \right) = 40^\circ$



a) $\sin \theta = \frac{1}{4}$ b) $\cos \theta = \frac{\sqrt{15}}{4}$

c) $\sec \theta = \frac{4}{\sqrt{15}}$ d) $\tan \theta = \frac{1}{\sqrt{15}}$

21. $-\frac{3\pi}{8} \left(\frac{180}{\pi} \right) = -108^\circ$

$\frac{36}{108}$
 $\times \frac{3}{3}$