

Pg. 299 #37-49 odd

$$37. S = \frac{9+11+16}{2} \quad A = \sqrt{18(18-9)(18-11)(18-16)}$$

$$A = \sqrt{18(9)(7)(2)}$$

$$S = 18$$

$$A = \sqrt{2268}$$

$$A = 47.6 \text{ cm}^2$$

$$39. S = \frac{58+40+63}{2} \quad A = \sqrt{80.5(80.5-58)(80.5-40)(80.5-63)}$$

$$A = \sqrt{80.5(22.5)(40.5)(17.5)}$$

$$S = 80.5$$

$$A = 1133.0 \text{ ft}^2$$

$$41. S = \frac{8+15+8}{2} \quad A = \sqrt{15.5(15.5-8)(15.5-15)(15.5-8)}$$

$$A = \sqrt{15.5(7.5)(.5)(7.5)}$$

$$S = 15.5$$

$$A = 20.9 \text{ yd}^2$$

$$43. a.) S = \frac{105+110+70}{2} \quad A = \sqrt{142.5(142.5-105)(142.5-110)(142.5-70)}$$

$$A = \sqrt{142.5(37.5)(32.5)(72.5)}$$

$$S = 142.5$$

$$A = 3548.4 \text{ steps}^2$$

$$S = \frac{41+75+110}{2} \quad A = \sqrt{113(113-41)(113-75)(113-110)}$$

$$A = \sqrt{113(72)(38)(3)}$$

$$S = 113$$

$$A = 963.1 \text{ steps}^2$$

Total vacant lot

$$3548.4 + 963.1 = 4511.5 \text{ steps}^2$$

$$b.) 4511.5(1.8)^2 = 14,617.3 \text{ ft}^2$$

$$45. A = \frac{1}{2}(13)(18) \sin 98$$

$$A = 51.5 \text{ mm}^2$$

$$47. A = \frac{1}{2}(42)(26) \sin 35 \quad 49. A = \frac{1}{2}(22)(36) \sin 41$$

$$A = 313.2 \text{ ft}^2$$

$$A = 259.8 \text{ in}^2$$