

**6-55. See below.**

- a.  $x \approx 45.56$
- b.  $x \approx 10.63$
- c.  $x \approx 265.48$
- d.  $x = 5$

**6-56.** 9 square units; Students can find  $AC = 5$  and then calculate  $\frac{1}{2}(5)(3.6)$ , or can use  $\overline{BC}$  as the base and calculate  $\frac{1}{2}(2+4)(3)$ .

**6-57. See below.**

- a.  $m = 33 \text{ m}, n = 36 \text{ m}$
- b. Area (small) =  $378 \text{ cm}^2$ , perimeter (small) =  $80 \text{ cm}$ , area (big) =  $850.5 \text{ m}^2$ , and perimeter (big) =  $120 \text{ m}$

**6-58. See below.**

- a. Similar because of  $AA^\sim$ .
- b. Neither because angles are not equal.
- c. Congruent because of  $ASA \cong$  or  $AAS \cong$ .

**6-59. See below.**

- a.  $\approx 71.56^\circ$
- b.  $y = x + 3$
- c.  $(1, 4)$

**6-60. D**