

4-39. See below.

a.
$$t = 11.524$$

b.
$$p \approx 3.215$$

c.
$$b \approx 148.505$$

4-40. See below.

a.
$$x^2 + 18^2 = 30^2$$
, $x = 24$

b.
$$2x + 20^{\circ} + 3x + 20^{\circ} + x + 2x = 360^{\circ}$$
, $x = 40^{\circ}$

c.
$$\frac{5}{12} = \frac{3}{x}$$
; $\frac{36}{5} = 7.2$

4-41. They are congruent. Possible response: Reflect $\triangle ADS$ across a vertical line, then translate it.

4-42. 24 possible ways: ABCD, ABDC, ACBD, ACDB, ADBC, ADCB, BACD, BADC, BCAD, BCDA, BDAC, BDCA, CABD, CADB, CBAD, CBDA, CDAB, CDBA, DABC, DACB, DBAC, DBCA, DCAB, DCBA

4-43. Her father's eyes were ≈ 69.126 inches high.

4-44. See below.

a.
$$A = 144 \text{ cm}^2$$
, $P = 52 \text{ cm}$

b.
$$A = 696.67 \text{ m}^2$$
, $P = 114.67 \text{ m}$

c.
$$A = 72 \text{ sq cm}, P = 48 \text{ cm}$$

d.
$$A = 130$$
 sq. feet, $P = 58$ feet