

5-77. $\approx 61^\circ$

5-78. See below.

- Impossible because a leg is longer than the hypotenuse.
- Impossible because the sum of the angles is more than 180° .

5-79. William is correct.

5-80. See below.

- $A'(-3, -6), B'(-5, -4), C'(0, -4)$
- $A''(3, 3), B''(1, 1), C''(1, 6)$

5-81. See below.

- $x = \frac{16}{5}$
- No solution
- $x = -11$ or 3
- $x = 288$

5-82. b is correct; if two sides of a triangle are congruent, the angles opposite them must be equal.