7.2 A. - sol

1. $c = 25$
2. $b = 10$
3. $c = 250$
4. $c = 51$
5. $b = \sqrt{15}$
6. $a = \sqrt{48} = 4\sqrt{3}$
7. $c = 78$
8. $a = 36$

17. $11^2 + 12^2 = 265$

$16^2 = 256 <$ hyp. length $\Rightarrow$ **acute**

18 $6^2 + 8^2 = 100$

$9^2 = 81 <$ hyp length $\Rightarrow$ **acute**

19. $45^2 + 60^2 = 5625$

$75^2 = 5625 \Rightarrow$ **right**

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1. $(A+B)(A+B) = A^2 + 2AB + B^2$
2. a) Right triangles: $\frac{1}{2}AB$

   Rhombus: C^2

   b) The angles outside each corner are complementary b/c ΔABC is a right triangle. So each corner is $90°$ and it's a square
3. $\underbrace{4\left(\frac{1}{2}AB\right)}_{\text{4 triangles}} + \underbrace{C^2}_{\text{inside square}} = \underbrace{A^2 + 2AB + B^2}_{\text{outside square}}$ ← areas

$$2AB + C^2 = A^2 + 2AB + B^2$$

$$C^2 = A^2 + B^2$$