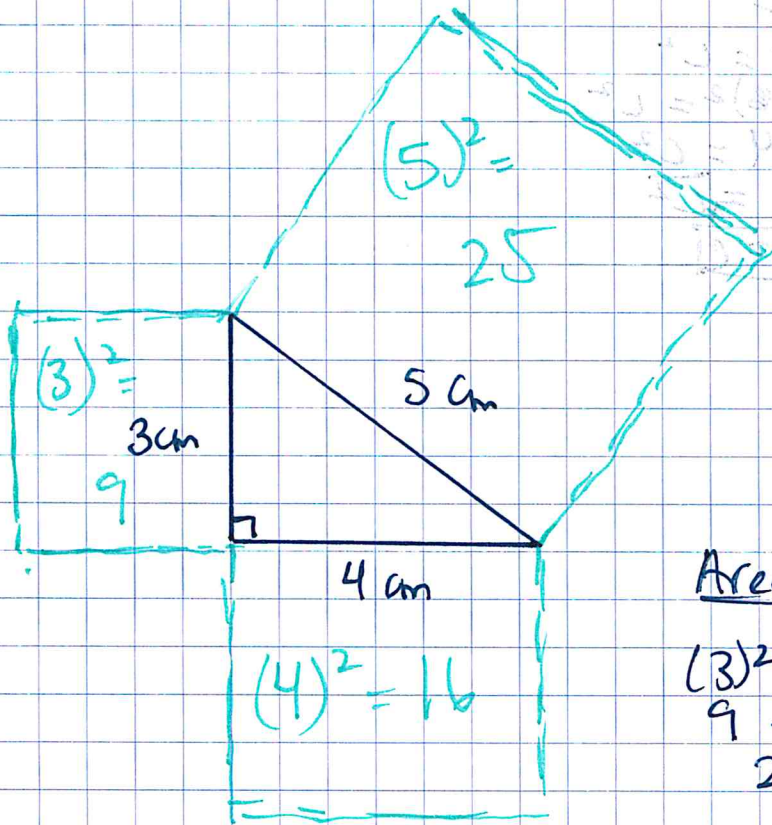


9.2.2 #69-77

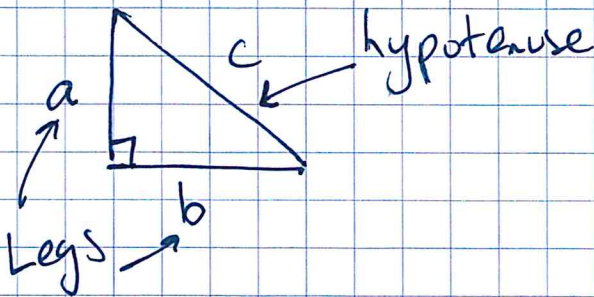
9-69



Area of \square

$$\begin{aligned} (3)^2 + (4)^2 &= (5)^2 \\ 9 + 16 &= 25 \\ 25 &= 25 \checkmark \end{aligned}$$

Pythagorean Theorem



$$\begin{aligned} (\text{leg } a)^2 + (\text{leg } b)^2 &= (\text{hypotenuse})^2 \\ a^2 + b^2 &= c^2 \end{aligned}$$

9-70 a.) $a^2 + b^2 = c^2$
 $9 + 34 = A_{16}$
 $43 = A_{16}$

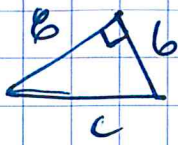
c.) $a^2 + b^2 = c^2$
 $10 + A_{\text{med.}} = 25$
 $-10 \quad -10$
 $A_{\text{med.}} = 15$

9-71 a.) 15, 36, 39 ft
 $a^2 + b^2 = c^2$
 $(15)^2 + (36)^2 = (39)^2$
 $225 + 1296 = 1521$
 $1521 = 1521$
 Yes!

c.) 8, 9, 12 yds
 $(8)^2 + (9)^2 = (12)^2$
 $64 + 81 = 144$
 $145 \neq 144$
 No!

9-72

b.)

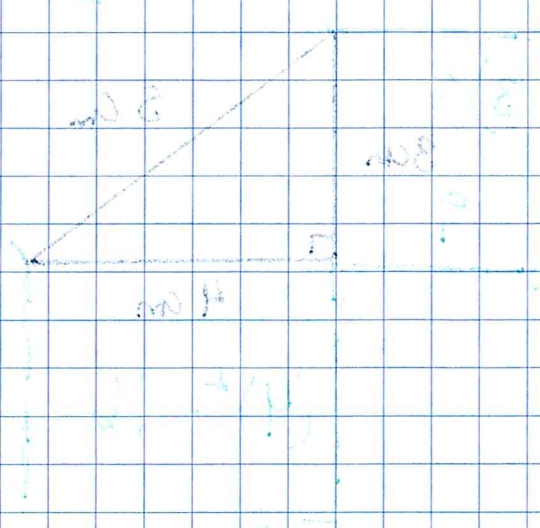


c.)

9-73

$$\begin{aligned}
 a^2 + b^2 &= c^2 \\
 (6)^2 + (8)^2 &= c^2 \\
 36 + 64 &= c^2 \\
 \sqrt{100} &= \sqrt{c^2} \\
 \underline{10} &= \underline{c}
 \end{aligned}$$

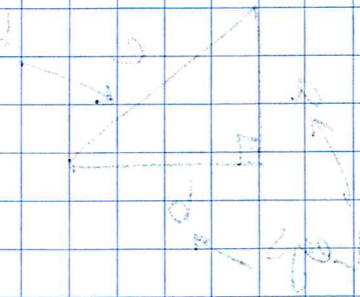
9-74



$$\begin{aligned}
 (25)^2 &= (15)^2 + (20)^2 \\
 625 &= 225 + 400 \\
 625 &= 625
 \end{aligned}$$

$$\begin{aligned}
 (25)^2 &= (15)^2 + (20)^2 \\
 625 &= 225 + 400 \\
 625 &= 625
 \end{aligned}$$

Pythagorean Theorem



$$\begin{aligned}
 25^2 &= 15^2 + 20^2 \\
 625 &= 225 + 400 \\
 625 &= 625
 \end{aligned}$$

$$\begin{aligned}
 25^2 &= 15^2 + 20^2 \\
 625 &= 225 + 400 \\
 625 &= 625
 \end{aligned}$$

$$\begin{aligned}
 (25)^2 &= (15)^2 + (20)^2 \\
 625 &= 225 + 400 \\
 625 &= 625
 \end{aligned}$$

$$\begin{aligned}
 (25)^2 &= (15)^2 + (20)^2 \\
 625 &= 225 + 400 \\
 625 &= 625
 \end{aligned}$$