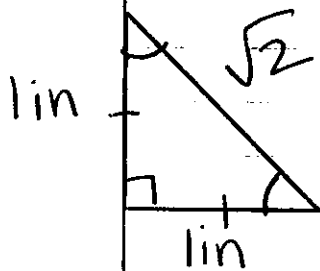


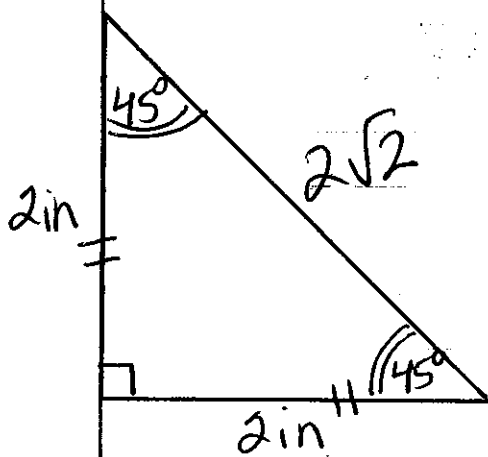
Day 62

8.2 Continued...

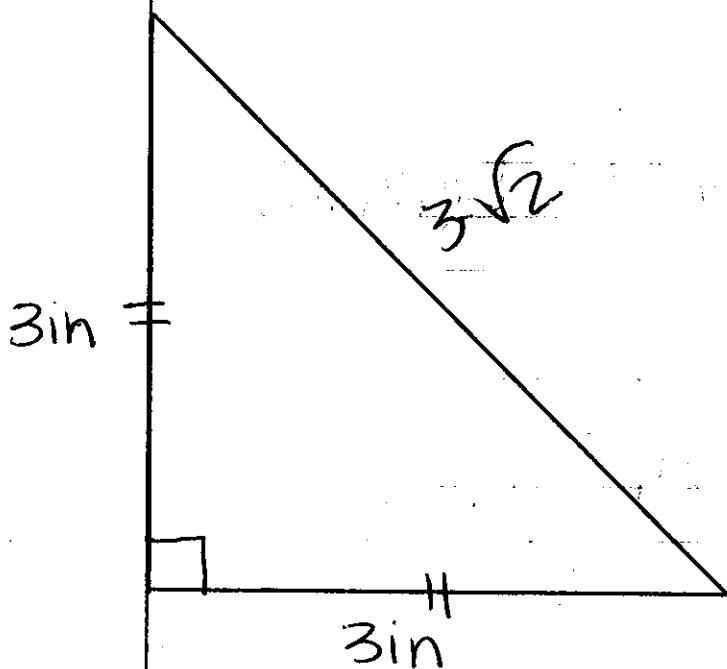
45° - 45° - 90° Triangles



$$\begin{aligned} 1^2 + 1^2 &= C^2 \\ 1 + 1 &= C^2 \\ \sqrt{2} &= \sqrt{C^2} \\ \sqrt{2} &= C \end{aligned}$$



$$\begin{aligned} 2^2 + 2^2 &= C^2 \\ 4 + 4 &= C^2 \\ \sqrt{8} &= \sqrt{C^2} \\ \sqrt{4 \cdot 2} & \\ 2\sqrt{2} &= C \end{aligned}$$

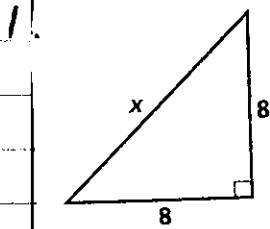
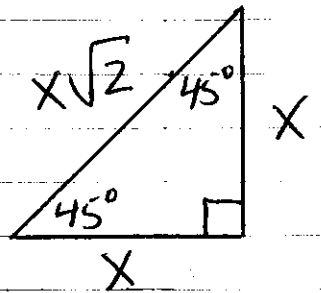


$$\begin{aligned} 3^2 + 3^2 &= C^2 \\ 9 + 9 &= C^2 \\ \sqrt{18} &= \sqrt{C^2} \\ \sqrt{9 \cdot 2} & \\ 3\sqrt{2} &= C \end{aligned}$$

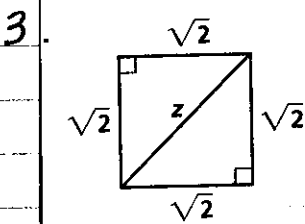
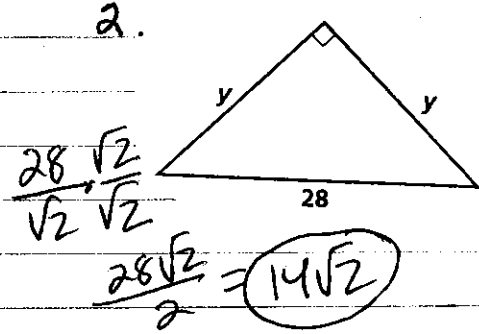
In a  $45^\circ-45^\circ-90^\circ \Delta$

$$\text{Hypo} = \text{leg} \cdot \sqrt{2}$$

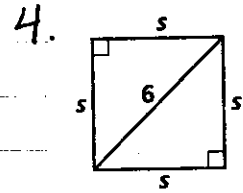
$$\text{leg} = \text{hypo} \div \sqrt{2}$$



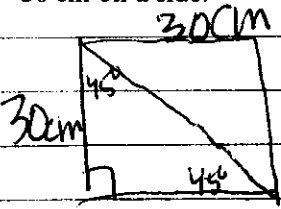
$$x = 8\sqrt{2}$$



$$\sqrt{2} \cdot \sqrt{2} = 2$$

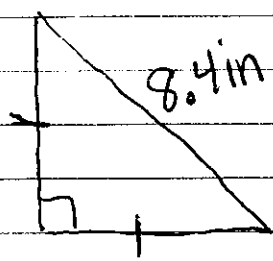


5. Find the length to the nearest centimeter of the diagonal of a square 30 cm on a side.



$$30\sqrt{2} \approx 42 \text{ cm}$$

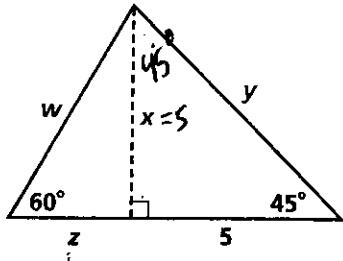
6. The hypotenuse of an isosceles right triangle is 8.4 in. Find the length of a side to the nearest tenth of an inch.



$$\frac{8.4}{\sqrt{2}} = 5.9 \text{ in}$$

Algebra Find the value of each variable. Leave your answers in simplest radical form.

7.



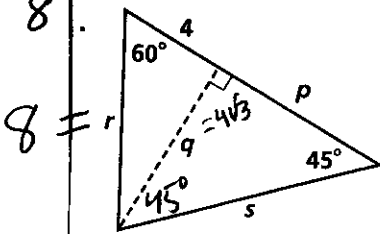
$$x = 5$$

$$y = 5\sqrt{2}$$

$$w = 2 \cdot \frac{5\sqrt{3}}{3} = \frac{10\sqrt{3}}{3}$$

$$z = \frac{5}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{5\sqrt{3}}{3}$$

8.



$$q = 4\sqrt{3}$$

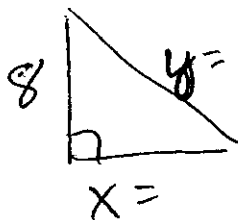
$$p = 4\sqrt{3}$$

$$s = 4\sqrt{3} \cdot \sqrt{2}$$

$$s = 4\sqrt{6}$$

p. 428-430 (1-6, 9-19, 32)  
draw picture for each

①



Turn-in