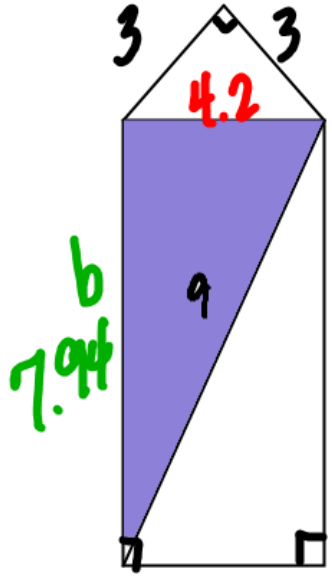
Δ $A = \frac{1}{2}bh$



$3^2 + 3^2 = c^2$

$9 + 9 = c^2$

$\sqrt{18} = \sqrt{c^2}$

$4.2 \approx c$

$4.2^2 + b^2 = 9^2$

$18 + b^2 = 81$

$-18 \quad -18$

$\sqrt{b^2} = \sqrt{63}$

$b = 7.94$

63.36

$A = \frac{1}{2}bh$

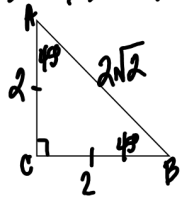
$A = \frac{1}{2}(4.2)(7.94)$

$A = 2.1\,(7.94)$

$A = 16.67$

55 Special Right Triangles

45-45-90

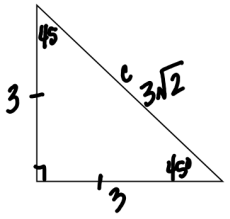


$2^2 + 2^2 = c^2$

$4 + 4 = c^2$

$\sqrt{8} = \sqrt{c^2}$

$2\sqrt{2} = c$

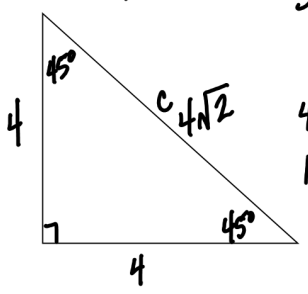


$3^2 + 3^2 = c^2$

$9 + 9 = c^2$

$\sqrt{18} = \sqrt{c^2}$ 9·2

$3\sqrt{2} = c$



$4^2 + 4^2 = c^2$

$16 + 16 = c^2$

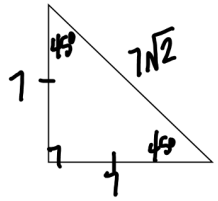
$\sqrt{32} = \sqrt{c^2}$ 16·2

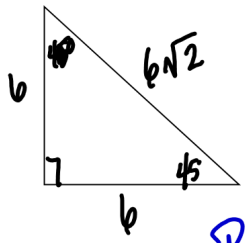
$4\sqrt{2} = c$

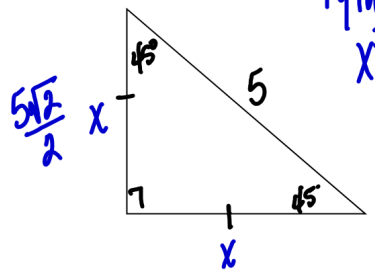
45-45-90 Isosceles Right Triangle

legs are congruent

hypotenuse = leg $\sqrt{2}$







Pythagorean Theorem

$x^2 + x^2 = 5^2$

$\frac{2x^2}{2} = \frac{25}{2}$

$\sqrt{x^2} = \sqrt{\frac{25}{2}}$

$\frac{5\sqrt{2}}{2}$

$x = \frac{\sqrt{25}}{\sqrt{2}}$

$x = \frac{5}{\sqrt{2}}$

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

$\sqrt{4}$

2

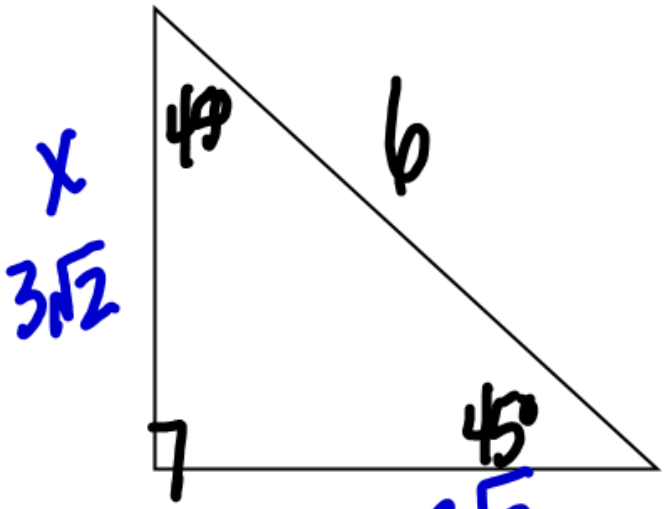
Rationalize the denominator

$\frac{\sqrt{2}}{\sqrt{2}} = 1$

$\frac{5}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

$\frac{5\sqrt{2}}{2}$

$x = \frac{5\sqrt{2}}{2}$



$x^2 + x^2 = 6^2$

$\frac{2x^2}{2} = \frac{36}{2}$

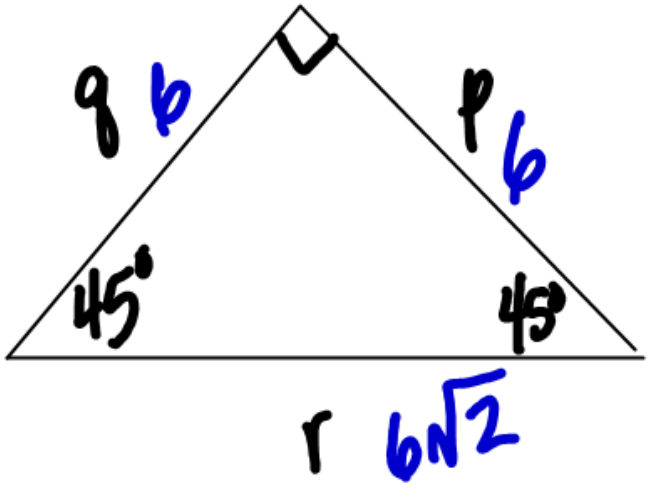
$\sqrt{x^2} = \sqrt{18}$ 9.2

$x = 3\sqrt{2}$

$\frac{6\sqrt{2}}{2}$ Reduce

$3\sqrt{2}$

p 336

14 - 17 All

22, 25