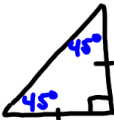


7.4 Special Δ's

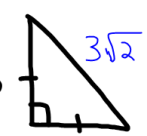
* The 45-45-90 Δ

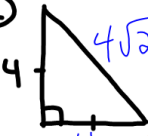
Comes from  cut in half


to get  Isosceles right Δ


4
9
16
25
36
49

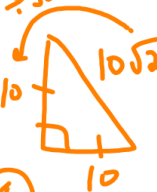
The pattern

①  $3^2 + 3^2 = x^2$
 $9 + 9 = x^2$
 $\sqrt{18} = \sqrt{x^2}$
 $\sqrt{9 \cdot 2} = x$
 $3\sqrt{2} = x$

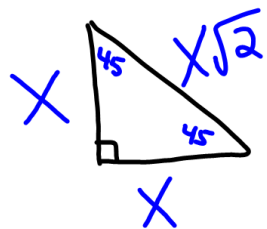
②  $4^2 + 4^2 = x^2$
 $16 + 16 = x^2$
 $\sqrt{32} = \sqrt{x^2}$
 $\sqrt{16 \cdot 2} = x$
 $4\sqrt{2}$

③  $6^2 + 6^2 = x^2$
 $36 + 36 = x^2$
 $\sqrt{72} = x$
 $\sqrt{36 \cdot 2} = x$
 $6\sqrt{2}$

④  $8^2 + 8^2 = x^2$
 $64 + 64 = x^2$
 $\sqrt{128} = \sqrt{x^2}$
 $\sqrt{64 \cdot 2} = x$
 $8\sqrt{2}$

 $10^2 + 10^2 = x^2$
 $100 + 100 = x^2$
 $\sqrt{200} = \sqrt{x^2}$
 $\sqrt{100 \cdot 2} = x$
 $10\sqrt{2}$

Pattern for 45-45-90



* Just take leg $\cdot \sqrt{2}$ to get hypotenuse

* To get leg, you take hypotenuse $:\sqrt{2}$