7.1b Simplify √ & Pythag Triples

Perfect □'s

$\sqrt{4} = 2$
$9 = 3$
$16 = 4$
$25 = 5$
$36 = 6$
$49 = 7$
$64 = 8$
$81 = 9$
$100 = 10$

Simplify √

$\sqrt{20}$ → break 20 into perfect □ • #

$\sqrt{4}\sqrt{5}$ * 4 biggest perfect □

$\sqrt{9}\sqrt{8}$

$2\sqrt{5}$

Reduce

① $\sqrt{24}$

$\sqrt{4}\sqrt{6}$

$2\sqrt{6}$

② $\sqrt{18}$

$\sqrt{9}\sqrt{2}$

$3\sqrt{2}$

③ $\sqrt{75}$

$\sqrt{25}\sqrt{3}$

$5\sqrt{3}$

④ $\sqrt{72}$

$\sqrt{36}\sqrt{2}$

$6\sqrt{2}$

$\sqrt{9}\sqrt{8}$

$3\sqrt{8}$ → Keep going

$3\sqrt{4}\sqrt{2}$

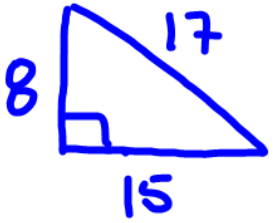
$3 \cdot 2\sqrt{2}$

$6\sqrt{2}$

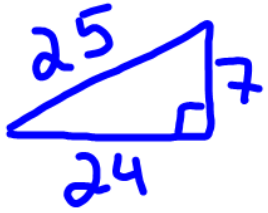
Pythag Triples - #'s that form a rt △

3, 4, 5

5, 12, 13



8, 15, 17



7, 24, 25

* or multiples of each group!

6, 8, 10 (*2)	10, 24, 26	16, 30, 34	14, 48, 50
9, 12, 15 (*3)	15, 36, 39	24, 45, 51	21, 72, 75
⋮	⋮	⋮	⋮