

Square Roots (3rd - 1/29/13)

Helping #'s

1	1
2	4
3	9
4	16
5	25
6	36
7	49
8	64
9	81
10	100

$$\text{Ex) } \sqrt{36} = 6$$

$$\text{Ex) } \sqrt{20}$$

$$\begin{array}{c} \swarrow \quad \searrow \\ \sqrt{4} \cdot \sqrt{5} \\ \hline 2\sqrt{5} \end{array}$$

$$\text{Ex) } \sqrt{50}$$

$$\begin{array}{c} \swarrow \quad \searrow \\ \sqrt{25} \sqrt{2} \\ \hline 5\sqrt{2} \end{array}$$

Adding/Subtracting Square Roots

* Combine Like Terms

$$\text{Ex) } 2\sqrt{3} + 3\sqrt{3} = 5\sqrt{3}$$

$$\text{Ex) } 4\sqrt{2} - 2\sqrt{2} = 2\sqrt{2}$$

$$\text{Ex) } \sqrt{80} - 5\sqrt{5}$$

$$\begin{array}{c} \swarrow \quad \searrow \\ \sqrt{16} \sqrt{5} \\ \downarrow \end{array}$$

$$4\sqrt{5} - 5\sqrt{5} = -1\sqrt{5}$$

$$\text{Ex) } 4\sqrt{10} + \sqrt{90}$$

$$\begin{array}{c} \swarrow \quad \searrow \\ \sqrt{9} \sqrt{10} \end{array}$$

$$4\sqrt{10} + 3\sqrt{10} = 7\sqrt{10}$$

P. 24

6, 9, 14-17, 22, 34-41

$$15) 5\sqrt{32} - 15\sqrt{2}$$

$$\begin{array}{c} \swarrow \quad \searrow \\ \sqrt{16} \sqrt{2} \\ \downarrow \\ 5 \cdot 4\sqrt{2} \end{array}$$

$$20\sqrt{2} - 15\sqrt{2}$$