

Simplifying Radicals - Day 2

Recall: Perfect squares

- 0 1 4 9 16 25 36 49

81 100 121 144 169 196 225

$$\sqrt{200}$$

$$\sqrt{100} \sqrt{2}$$

$$10\sqrt{2}$$

$$\sqrt{200}$$

$$\sqrt{4} \sqrt{50}$$

$$2\sqrt{50}$$

$$2(\sqrt{25}\sqrt{2})$$

$$2(5\sqrt{2})$$

$$10\sqrt{2}$$

$$\sqrt{200}$$

$$\sqrt{25} \sqrt{8}$$

$$5\sqrt{8}$$

$$5(\sqrt{4}\sqrt{2})$$

$$5(2\sqrt{2})$$

$$10\sqrt{2}$$

Examples:

1. $\sqrt{32}$ 4, 16

$$\sqrt{16} \sqrt{2}$$

$$4\sqrt{2}$$

2. $\sqrt{108}$ $\frac{108}{2} \underline{54}$
4 9 36

$$\sqrt{36} \sqrt{3}$$

$$6\sqrt{3}$$

3. $\sqrt{36}$

$$6$$

4. $\sqrt{162}$ $16\frac{1}{2}$ 81
9, 81

$$\sqrt{81} \sqrt{2}$$

$$9\sqrt{2}$$

5. $3\sqrt{88}$

$$3(\sqrt{4}\sqrt{22})$$

$$3(2\sqrt{22})$$

$$6\sqrt{22}$$

6. $5\sqrt{125}$

$$5(\sqrt{25}\sqrt{5})$$

$$5(5\sqrt{5})$$

$$25\sqrt{5}$$

* no final answer will have $\sqrt{8}$

HOMEWORK

Worksheet - HW Simplifying
Radicals - Day 2