

6.5 Intro to Radicals

Date _____ Alg _____

Factor the following into two factors: one factor should be the BIGGEST perfect square that goes into the number evenly.

1) 48

2) 44

3) 18

4) 125

Simplify.

5) $\sqrt{27}$

6) $\sqrt{8}$

7) $\sqrt{20}$

8) $\sqrt{12}$

Unsimplify.

9) $2\sqrt{7}$

10) $14\sqrt{2}$

11) $6\sqrt{2}$

12) $2\sqrt{5}$

Simplify.

13) $\sqrt{98}$

14) $\sqrt{30}$

15) $\sqrt{80}$

16) $\sqrt{128}$

17) $\sqrt{64}$

18) $\sqrt{640}$

19) $\sqrt{32}$

20) $\sqrt{343}$

6.5 Intro to Radicals

Factor the following into two factors: one factor should be the BIGGEST perfect square that goes into the number evenly.

1) 48

16 and 3

2) 44

4 and 11

3) 18

9 and 2

4) 125

25 and 5

Simplify.

5) $\sqrt{27}$

 $3\sqrt{3}$

6) $\sqrt{8}$

 $2\sqrt{2}$

7) $\sqrt{20}$

 $2\sqrt{5}$

8) $\sqrt{12}$

 $2\sqrt{3}$ **Unsimplify.**

9) $2\sqrt{7}$

 $\sqrt{28}$

10) $14\sqrt{2}$

 $\sqrt{392}$

$$11) \frac{6\sqrt{2}}{\sqrt{72}}$$

$$12) \frac{2\sqrt{5}}{\sqrt{20}}$$

Simplify.

$$13) \frac{\sqrt{98}}{7\sqrt{2}}$$

$$14) \frac{\sqrt{30}}{\sqrt{30}}$$

$$15) \frac{\sqrt{80}}{4\sqrt{5}}$$

$$16) \frac{\sqrt{128}}{8\sqrt{2}}$$

$$17) \frac{\sqrt{64}}{8}$$

$$18) \frac{\sqrt{640}}{8\sqrt{10}}$$

$$19) \frac{\sqrt{32}}{4\sqrt{2}}$$

$$20) \frac{\sqrt{343}}{7\sqrt{7}}$$