




Name _____


Simplifying Radical Expressions



 $\sqrt{20}$



 $\sqrt{27}$


 $\sqrt{150}$



 $\sqrt{8}$



 $\sqrt{45}$


 $\sqrt{28}$



 $\sqrt{500}$



 $\sqrt{72}$


 $\sqrt{12}$



 $\sqrt{54}$



 $\sqrt{24}$



 $\sqrt{40}$



 $\sqrt{32}$


$9\sqrt{3}$	$2\sqrt{5}$	$8\sqrt{2}$	$2\sqrt{6}$	$4\sqrt{7}$
$3\sqrt{2}$	$6\sqrt{3}$	$10\sqrt{5}$	$7\sqrt{3}$	$2\sqrt{2}$
$3\sqrt{6}$	$2\sqrt{7}$	$5\sqrt{5}$	$3\sqrt{3}$	$2\sqrt{10}$
$5\sqrt{6}$	$9\sqrt{10}$	$4\sqrt{2}$	$6\sqrt{5}$	$2\sqrt{3}$
$7\sqrt{2}$	$6\sqrt{2}$	$5\sqrt{3}$	$3\sqrt{5}$	$8\sqrt{5}$



 $\sqrt{18}$



 $\sqrt{128}$



 $\sqrt{125}$



 $\sqrt{98}$



 $\sqrt{180}$



 $\sqrt{147}$



 $\sqrt{243}$


 $\sqrt{75}$


 $\sqrt{320}$


 $\sqrt{108}$


 $\sqrt{112}$


 $\sqrt{810}$

Simplifying Radical Expressions

Simplify.

1) $\sqrt{125n}$

2) $\sqrt{216v}$

3) $\sqrt{512k^2}$

4) $\sqrt{512m^3}$

5) $\sqrt{216k^4}$

6) $\sqrt{100v^3}$

7) $\sqrt{80p^3}$

8) $\sqrt{45p^2}$

9) $\sqrt{147m^3n^3}$

10) $\sqrt{200m^4n}$

11) $\sqrt{75x^2y}$

12) $\sqrt{64m^3n^3}$

13) $\sqrt{16u^4v^3}$

14) $\sqrt{28x^3y^3}$

Adding and Subtracting Radical Expressions

Simplify.

1) $3\sqrt{6} - 4\sqrt{6}$

2) $-3\sqrt{7} + 4\sqrt{7}$

3) $-11\sqrt{21} - 11\sqrt{21}$

4) $-9\sqrt{15} + 10\sqrt{15}$

5) $-10\sqrt{7} + 12\sqrt{7}$

6) $-3\sqrt{17} - 4\sqrt{17}$

7) $-10\sqrt{11} - 11\sqrt{11}$

8) $-2\sqrt{3} + 3\sqrt{27}$

9) $2\sqrt{6} - 2\sqrt{24}$

10) $2\sqrt{6} + 3\sqrt{54}$

11) $-\sqrt{12} + 3\sqrt{3}$

12) $3\sqrt{3} - \sqrt{27}$

Multiplying Square Roots

Simplify.

1) $\sqrt{5} \cdot \sqrt{5}$

2) $\sqrt{10} \cdot \sqrt{2}$

3) $\sqrt{8} \cdot \sqrt{8}$

4) $\sqrt{20} \cdot \sqrt{10}$

5) $\sqrt{3} \cdot \sqrt{3}$

6) $\sqrt{5} \cdot \sqrt{12}$

7) $2\sqrt{2} \cdot \sqrt{12}$

8) $\sqrt{5} \cdot 2\sqrt{2}$

9) $\sqrt{6} \cdot -2\sqrt{6}$

10) $\sqrt{2} \cdot -2\sqrt{5}$

11) $\sqrt{6} \cdot -\sqrt{9}$

12) $\sqrt{5} \cdot -5\sqrt{5}$

13) $\sqrt[3]{3} \cdot \sqrt[3]{-20}$

14) $\sqrt{5} \cdot \sqrt{3}$

15) $\sqrt{6} \cdot \sqrt{2}$

16) $\sqrt[3]{3} \cdot \sqrt[3]{9}$

17) $3\sqrt{3}(4 - 3\sqrt{5})$

18) $4\sqrt{15}(-3\sqrt{6} + 5)$

19) $4\sqrt{15}(\sqrt{6} + \sqrt{5})$

20) $-\sqrt{2}(\sqrt{10} - 4\sqrt{6})$

21) $\sqrt{15}(2\sqrt{10} - 4\sqrt{6})$

22) $(-7 + \sqrt{3x})(4 + \sqrt{3x})$

23) $(\sqrt{2a} - 5)(7\sqrt{2a} - 5)$

24) $(2 + \sqrt{5})(-2 + \sqrt{5k})$

25) $(\sqrt{3} + \sqrt{5x})(\sqrt{3} - 5\sqrt{5x})$

26) $(7 + \sqrt{6})(1 + \sqrt{6})$

Name: _____

CCGPS ALGEBRA

January 9, 2013

Unit Conversion Worksheet

Conversions

1 hour = 3600 seconds

1 meter = 3.28 feet

1 kg = 2.2 lbs

1 km = 1000m

100cm = 1 m

1 mile = 5280 feet

1 km = 0.62 miles

1 lb = 0.45 kg

1 foot = 12 inches

1 yard = 3 feet

1 light second = 300,000,000 meters

1 quart = 0.946 liters

1 inch = 2.54 cm = 25.4 mm

Convert the following quantities.

1) 565,900 seconds into days

2) 17 years into minutes

3) 43 miles into feet

4) 165 pounds into kilograms

5) 100 yards into meters

6) 22,647 inches into miles

7) 2678 cm into feet

- 8) 60 miles per hour into meters per second
- 9) 130 meters per second into miles per hour
- 10) 1100 feet per second into miles per hour
- 11) 53 yards per hour into inches per week
- 12) 721 lbs per week into kg per second
- 13) 88 inches per second into miles per day
- 14) 12080 gallons per month into liters per hour
- 15) 27 miles per gallon into kilometers per liter
- 16) 186,282 miles per second into meters per second