

Honors Geometry- Warm-Ups

Tuesday, 11/29

Simplifying Radicals: Simplify each of the following radical expressions.

1. $\sqrt{52} =$

2. $4\sqrt{54} =$

3. $\sqrt{70} =$

4. $-2\sqrt{144} =$

5. $\sqrt{72x^6y^9z} =$

6. $3\sqrt{50x^4} =$

7. $-3\sqrt{28x^5y^3} =$

8. $-7\sqrt{24x^2y^8} =$

Wednesday, 11/30

Multiplying Radicals: Simplify each of the following radical expressions using multiplication.

1. $\sqrt{3} \cdot \sqrt{7} =$

2. $\sqrt{6} \cdot \sqrt{6} =$

3. $(6\sqrt{11})^2 =$

4. $\sqrt{6} \cdot \sqrt{9} =$

5. $\sqrt{2a^2} \cdot \sqrt{10a^3} =$

6. $(2\sqrt{12})^2 =$

7. $5\sqrt{11xy^3} (2\sqrt{3x^2y}) =$

8. $2\sqrt{12} \cdot 3\sqrt{60} =$

Thursday, 12/1

Dividing Radicals: Simplify each of the following radical expressions using division.

1. $\sqrt{\frac{72}{5}} =$

2. $\sqrt{\frac{60}{15}} =$

3. $\frac{\sqrt{5}}{\sqrt{2}} =$

4. $\frac{8}{\sqrt{3}} =$

5. $\frac{2\sqrt{2}}{3\sqrt{3}} =$

6. $\frac{8}{\sqrt{144}} =$

7. $\sqrt{\frac{20}{80}} =$

8. $\frac{\sqrt{2}}{7\sqrt{5}} =$

Friday, 12/2

Pythagorean Theorem Applications: Draw a picture for each scenario. Put your answers in simplest radical form.

1. Kevin is standing 2 miles due north of the school. James is standing 4 miles due west of the school. What is the distance between Kevin and James?

2. Two sides of a right triangle are 8 and 12.

A. Find the missing side if these are the lengths of the legs.

B. Find the missing side if these are the length so a leg and hypotenuse.

3. A baseball diamond is a square with sides of 90 feet. What is the shortest distance between first base and third base? Round to one decimal place.