

# Alg1Lesson40

Tuesday, February 2, 2016 4:45 PM



Alg1Lesson40

Algebra I  
Unit 4  
02/04-05/16

### Lesson 40 – Context

#### **Learning and Social Objective(s)**

1. Students will be able to find the area of a rectangle and the volume of cube.
2. Students will be able to find the perimeter of a shape/figure.
3. Students will be able to complete test corrections.
4. Students will be able to meet the student expectations.

#### **Agenda [103 minutes]**

1. Look Over Tests [5 min]
2. Agenda/Objectives [3 min]
3. Guided Notes and Practice [30 min]
4. Test Corrections for PBA and Unit 3 Exam [50 min]
5. Wrap-Up [5 min]

#### **Apple word**

↳ Context: the circumstances that form the setting for something.

#### **Homework 39 (Due 02/08/16)**

SB page 303 #10-15 and SB page 306 #8-11 and SB page 312 #21-24

#### **Homework (Due 02/09-10/16)**

Quiz 4.1 Review Sheet

#### **Teacher Examples**

SB page 311 #17-19

#### **Lesson Notes**

Complete the notes and lesson from Lesson 39 on radicals with area, volume, and perimeter.

Have students work on test corrections. I will lead the students through each problem one by one. Each problem I will give them time to figure out what approach they need to do and then call on the class as a whole to come to an agreement. The teacher will reveal the answer and then the students will write down the correct answer and start working on showing the work to prove it. The teacher will also share common mistakes and misconceptions as they appear throughout the process. Students who received the correct answer should work ahead to try to figure out what they messed up based on their notes and non-human resources. They can also work on the corrections for the other test or the Quiz 4.1 Review Sheet. Test corrections are due at the end of the class period and will go in the homework category.

Students that finish early should work on the Quiz 4.1 Review Sheet.

# Lesson39Key

Tuesday, February 2, 2016 4:26 PM



Lesson39Key

Name:

Key

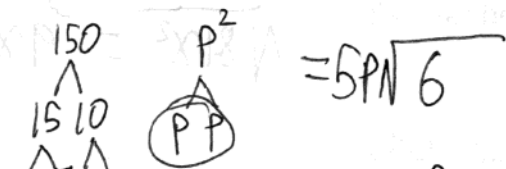
Class Period:

### Lesson 39 Guided Notes

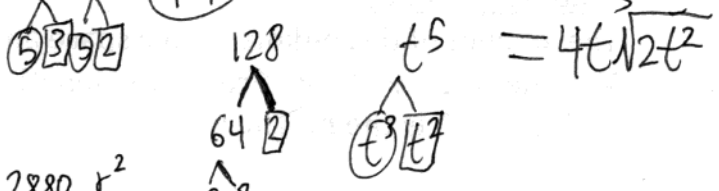
#### Warm-Up

Directions: Answer each of the problems below and be prepared to share your answers. When you finish, write down today's homework from the Daily Bulletin into your Assignment Log.

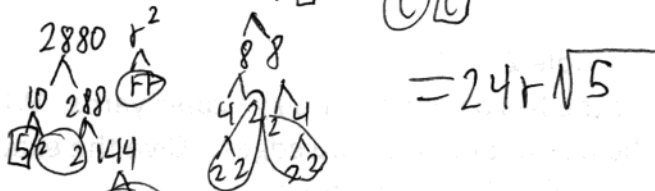
1. Simplify  $\sqrt[2]{150p^2}$ .



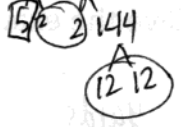
2. Simplify  $\sqrt[3]{128t^5}$ .



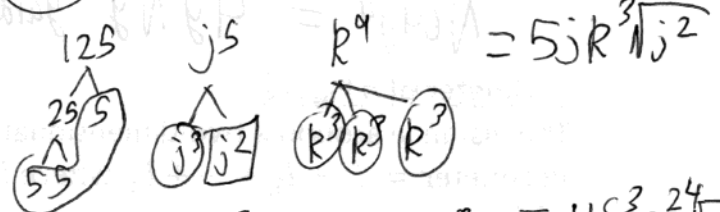
3. Simplify  $\sqrt{2880r^2}$ .



4. Simplify  $\sqrt[3]{27m^2}$ .



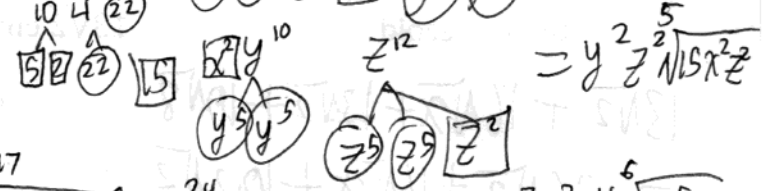
5. Simplify  $\sqrt[3]{125j^5k^9}$ .



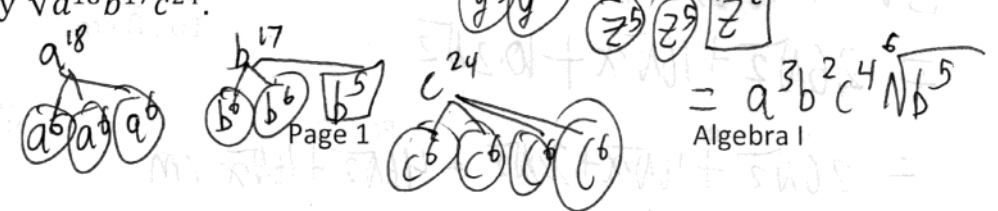
6. Simplify  $\sqrt[4]{160f^{13}g^8}$ .



7. Simplify  $\sqrt[5]{15x^2y^{10}z^{12}}$ .



8. Simplify  $\sqrt[6]{a^{18}b^{17}c^{24}}$ .



Mr. Turner

### Area of a Square

The amount of space within a two-dimensional object.

Area =  $l \cdot w$ , where  $l$  is the length of the object and  $w$  is the width.

#### **Example 1**

A square has an area of  $81x^2$  square feet. What is the length of one of the sides? Give the exact answer in simplified radicals.

Area =  $81x^2\text{ft}^2$

$$\sqrt{81x^2} = 9x \text{ ft}$$



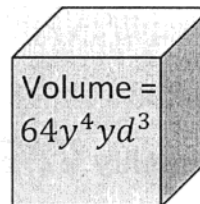
### Volume of a Cube

The amount of three-dimensional space an object occupies.

Volume =  $l \cdot w \cdot h$ , where  $l$  is the length of the object,  $w$  is the width, and  $h$  is the height.

#### **Example 2**

A cube has a volume of  $64y^4$  cubic yards. What is the length of one of the edges? Give the exact answer in simplified radicals.



$$\sqrt[3]{64y^4} = 4y\sqrt[3]{y} \text{ yards}$$



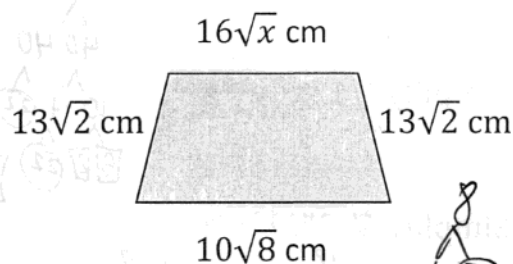
### Perimeter of a Figure

The distance around a two-dimensional shape.

Perimeter =  $l_1 + l_2 + \dots + l_n$ , where  $l$  is the length of a side of the shape.

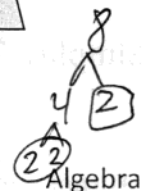
#### **Example 3**

Determine the perimeter of the trapezoid.



$$\begin{aligned} &13\sqrt{2} + 16\sqrt{x} + 13\sqrt{2} + 10\sqrt{8} \\ &= 26\sqrt{2} + 16\sqrt{x} + 10 \cdot 2\sqrt{2} \end{aligned}$$

$$\begin{aligned} &\text{Mr. Turner} \qquad \qquad \qquad \text{Page 2} \\ &= 26\sqrt{2} + 16\sqrt{x} + 20\sqrt{2} = 46\sqrt{2} + 16\sqrt{x} \text{ cm} \end{aligned}$$



Algebra I

# Quiz4.1ReviewSheet

Thursday, February 4, 2016 8:48 AM



Quiz4.1ReviewSheet

Name:

Class Period:

### Quiz 4.1 Review Sheet

#### **Problem 1**

Simplify the following expression as much as possible.

$$\frac{(2z^0y^2)^2}{y} - (3x^2y^1)^3x^{-6}$$

#### **Problem 2**

Simplify the following expression as much as possible.

$$\left(\sqrt[3]{64y^4}\right)(3y)^{2/3} + \frac{\sqrt[4]{16x^4}}{x}$$

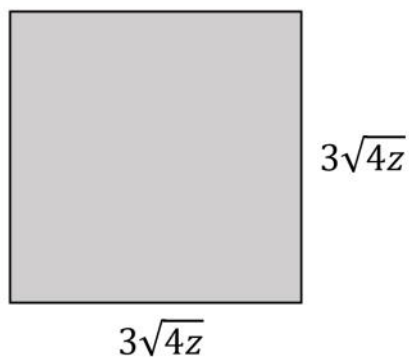
**Problem 3**

Simplify the following expression as much as possible.

$$\frac{(2x^3y^{-1})^4}{(3y)^{-2}} - (56x^{12}y^{-2}z^5)^0$$

**Problem 4**

Find the area of the square in square centimeters.



**Problem 5**

Find the perimeter of the shape below in feet.

