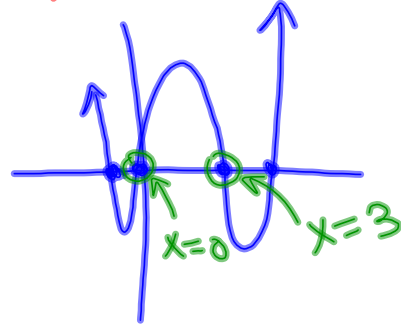


Warm Up: on a separate piece of paper...you will hand this in

Find ALL the zeros :

$$2x^4 - 16x^3 + 23x^2 + 21x + \bigcirc$$



$$\begin{array}{r} 2 \overline{) 2 - 16 \ 23 \ 21 \ 0} \\ \underline{0 \ 0 \ 0 \ 0} \\ 2 \ 16 \ 23 \ 21 \\ 2x^3 - 16x^2 + 23x + 21 \end{array}$$

$$\begin{array}{r} 3 \overline{) 2 \ -16 \ 23 \ 21} \\ \underline{ 6 \ -30 \ -21} \\ 2 \ -10 \ -7 \ 0 \\ 2x^2 - 10x - 7 \end{array}$$

$$\frac{10 \pm \sqrt{10^2 - 4(2)(-7)}}{2(2)}$$

$$\frac{10 \pm \sqrt{100 + 56}}{4}$$

$$\frac{10 \pm \sqrt{156}}{4}$$

$$\frac{10 \pm 2\sqrt{39}}{4}$$

$$\begin{array}{l} x=0 \\ x=3 \end{array} \quad x = \frac{5 \pm \sqrt{39}}{2}$$

Examples:

page 183

Simplify. Use absolute value symbols where required.

$$216^{\frac{2}{3}}$$

$$\sqrt[5]{32^3}$$

$$625^{\frac{-3}{4}}$$

$$\sqrt[3]{8x^6}$$

$$\sqrt[4]{2401y^4z^{12}}$$

$$\sqrt{49a^4b^2}$$

Handwritten solutions for the examples above, showing various steps and simplifications with color-coded annotations:

- $(125x^6y^3)^{\frac{-1}{3}}$
 - Green arrow points to $(5\sqrt[5]{1024a^5})^4$
 - Green arrow points to $(4a^{5/5})^4$
 - Green arrow points to $(4a)^4$
 - Green arrow points to $256a^4$ (circled in green)
- $(1024a^5)^{\frac{4}{5}}$
 - Red arrow points to $(1024a^5)^{\frac{4}{5}}$
 - Red arrow points to $1024^{4/5}$
 - Red arrow points to $a^{20/5}$
 - Red arrow points to $256a^4$ (circled in purple)
- $\left(\frac{16r^8}{81}\right)^{\frac{3}{4}}$
 - Blue arrow points to $\left(\frac{16r^8}{81}\right)^{\frac{3}{4}}$
 - Blue arrow points to $16^{3/4}$
 - Blue arrow points to $r^{24/4}$
 - Blue arrow points to $8r^6$
 - Blue arrow points to 27 (circled in blue)
- $\sqrt[5]{\left(\frac{243}{x^5}\right)^2}$
 - Red arrow points to $\left(\frac{243}{x^5}\right)^2$
 - Red arrow points to $\left(\frac{243}{x^5}\right)^2$
 - Red arrow points to $\left(\frac{3}{x}\right)^2$
 - Red arrow points to $\frac{9}{x^2}$ (circled in green)
- $(729x^9y^3)^{\frac{2}{3}}$
- $\left(\frac{81d^4}{1296}\right)^{\frac{3}{4}}$

Section
7.2D

1) Simplify using the properties of exponents. State the property used in each step.

a) $(3x^{2/3})(4x^{3/4})$

b) $\frac{72x^{3/4}}{9x^{1/3}}$

c) $(x^{4/5})^5$

d) $(125x^9y^6)^{1/3}$

$\frac{4}{5} - \frac{3}{10} = \frac{8}{10} - \frac{3}{10} = \frac{5}{10} = \frac{1}{2}$

$\star$ e) $\frac{(2y^{1/5})^4}{y^{3/10}}$

$\frac{2^4 y^{4/5}}{y^{3/10}} = \frac{16 y^{4/5}}{y^{3/10}} = 16 y^{1/2}$

f) $(49x^{-2}y^4)^{-1/2}(xy^{1/2})$

$\star$ g) $(8x^{-6}y^3)^{1/3}(x^{5/6}y^{-1/3})^6$

$8^{1/3} x^{-6/3} y^{3/3} \cdot x^{5/6 \cdot 6} y^{-1/3 \cdot 6}$

$2 x^{-2} y^1 \cdot x^5 y^{-2}$

$\frac{2x^3}{y}$

h) $\left(\frac{x^{1/2}y^{-7/4}}{y^{-5/4}}\right)^{-4}$

HOMework:

UNIT 7 Part 1: Intermediate Algebra B

<http://www.anoka.k12.mn.us/cphswitchger>

Name: _____

Period: 5

Use this guide to help you evaluate where you are at in this chapter, and identify areas that you need extra help in.

☺=Proficient (you are awesome at this) ☹=Middle (you need some improvement) ☹=Not Proficient (HELP!)

Intermediate Algebra Unit 6 : Solving Polynomial functions					
Date Covered	LT Letter	Learning Target (LT) (What you should know)	Practice Problems	Homework Score	Self-Evaluation (Do you know it?)
5/18	7.1 B & 7.1 C	I can graph square root and cube root functions and identify significant features of the graph.	7.1B #1, 7, 8, 18 (P-139) 7.1C #1, 6, 7, 19 (P-143)		☹ ☹ ☹
5/19	7.2 A	I can demonstrate understanding of exponent properties (including negative exponents).	7.2A #7-9, 14-19 (P-147)		☹ ☹ ☹
5/20			Worksheet yellow		☹ ☹ ☹
5/21	7.2 B & 7.2C	I can simplify radical expressions and expressions with rational exponents.	Worksheet white		☹ ☹ ☹
5/22	7.2 D		Worksheet green		☹ ☹ ☹
5/26	Review	Unit 7 Part 1 Review	Review Packet		☹ ☹ ☹
Test Date: 5/27 WED	Test Reminders:			Review Done? Y/N Review Checked with answer key? Y/N Did you ask about the ones you didn't know how to do? Y/N	

TUES → After school to review
OR
Unit 6
WED

THUR → in class retake opportunity
for Unit 6