

April 6, 2015  
Exam #2

#7)  $(x^2 y)^{1/4} x^{2/3} y^{-3/8}$

$$x^{1/2} y^{1/4} x^{2/3} y^{-3/8}$$

$$x^{\frac{1}{2} + \frac{2}{3}} = \frac{3+4}{6} = \frac{7}{6}$$

$$y^{\frac{1}{4} + (-\frac{3}{8})} = \frac{2-3}{8} = -\frac{1}{8}$$

$$x^{7/6} \cdot y^{-1/8} = \frac{y^{1/8}}{x^{7/6}}$$

$\frac{x^{7/6}}{y^{1/8}}$

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$$10^{2/3} \cdot 10^{1/9}$$

$$10^{\frac{2}{3} + \frac{1}{9}}$$

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$$g(x) = \sqrt{-7x-8}$$

$$\rightarrow -7x-8 \geq 0$$

$$\frac{-7x}{-7} \geq \frac{8}{-7}$$

$$x \leq -\frac{8}{7}$$

$$\left(-\infty, -\frac{8}{7}\right]$$

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$$\frac{\sqrt{a}}{\sqrt{b}-\sqrt{a}} \cdot \frac{\sqrt{b}+\sqrt{a}}{\sqrt{b}+\sqrt{a}}$$

$$\frac{\sqrt{ab} + a}{b-a}$$

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$$\frac{x^{-5/7}}{x^{-4/9}} = \frac{1}{x^{5/7}} \cdot x^{4/9} = \frac{1}{x^{5/7}} \cdot \frac{x^{4/9}}{1}$$

$$= x^{\frac{4}{9} - \frac{5}{7}} = \frac{28-45}{63} = \frac{-17}{63}$$

$$x^{-17/63} = \frac{1}{x^{17/63}}$$

Apr 6-10:16 AM

42 <del>E1</del>	<del>80</del> <del>E2</del>	80 E3	80 <span style="border: 1px solid green; border-radius: 50%; padding: 2px;">F</span>
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Complex Numbers  
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 Quadratic Functions

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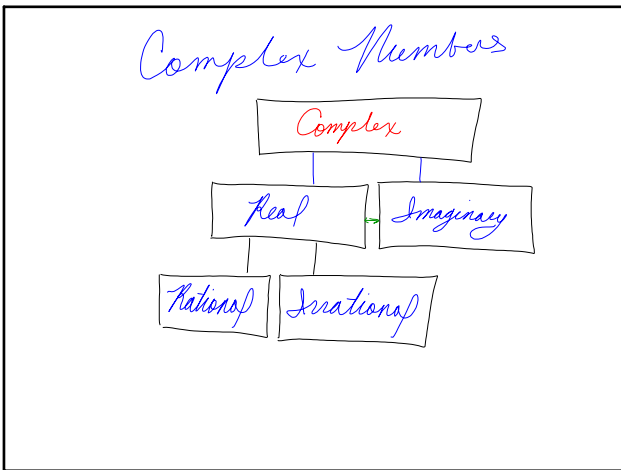
$$x^2 + 4 = 0$$

$$\sqrt{x^2} = \pm \sqrt{-4}$$

$$x = \pm ?$$

$(?)^2 = -4?$   
 ↑  
 Not a Real Number

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Imaginary Numbers  
 FACT!

①  $\sqrt{-1} = i$

②  $i^2 = -1$

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