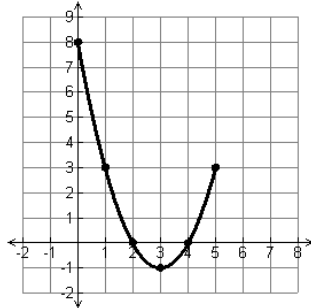


Algebra 2 Honors
Feb 2 to Feb 13

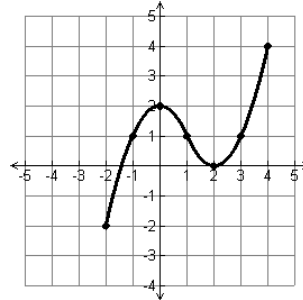
Date	Topic	Assignment
Monday 2/2	Composite Functions	Worksheet
Tuesday 2/3	Inverse Functions	Handout
Wednesday 2/4	6.1 Rational Exponents	P.417 (15-41 odd) Rewrite and use calculator to simplify
Thursday 2/5	6.2 Properties of Rational Exponents	P.424 (16,19,21,43-65 odd except 51)
Friday 2/6	Rationalizing the Denominator	Worksheet
Monday 2/9	6.6 Solving Radical Functions (Day 1)	Pg. 456 (3-31 odd)
Tuesday 2/10	6.6 Solving Radical Functions (Day 2)	Pg. 457 (35-51 odd, 54)
Wednesday 2/11	6.5 Square Root Parent Graph	Worksheet
Thursday 2/12	Cubic Parent Graph	Worksheet
Friday 2/13	Review	TEST ON Tuesday 2/17

Composite Functions - Monday, 2/2

$f(x)$ Domain: $0 \leq x \leq 5$



$g(x)$ Domain: $-2 \leq x \leq 4$



Find the following.

- 1) $f(0)$
- 2) $f(3)$
- 3) $g(-2)$
- 4) $g(2)$
- 5) $f(g(0))$
- 6) $f(g(-2))$
- 7) $f(g(2))$
- 8) $f(g(-1))$
- 9) $g(f(3))$
- 10) $g(f(2))$
- 11) $g(f(1))$
- 12) $g(f(0))$
- 13) $f(f(4))$
- 14) $g(g(0))$
- 15) $g(f(g(4)))$
- 16) When is $f(g(x)) = 3$?
- 17) Is it possible for $f(g(x)) = -1$? Explain.
- 18) Is it possible for $g(f(x)) = -3$? Explain.

Rationalizing - Friday, 2/6

I. Rationalize the denominator.

1) $\frac{4}{\sqrt{5}}$

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

3) $\frac{x+1}{\sqrt{x^2-1}}$

4) $\frac{2-\sqrt{2}}{5+\sqrt{2}}$

5) $\frac{x-1}{\sqrt{x-1}}$

6) $\frac{2}{\sqrt{x-3}}$

7) $\sqrt{\frac{5}{12a}}$

8) $\frac{2x^{\frac{1}{2}} + x^{\frac{3}{2}}}{x^{\frac{1}{2}}}$

II. Rationalize the numerator.

14) $\frac{\sqrt{5}-\sqrt{x+5}}{x}$

15) $\frac{5+\sqrt{3}}{3-\sqrt{2}}$

16) $\frac{\sqrt{2x-3}-\sqrt{3}}{x}$

Square Root Graphing - Wednesday, 2/11For each a) State the transformations, b) find the Domain and Range, c) find the intercepts, and d) graph
Show any needed work for finding intercepts. Intercepts should be exact values.

1) $y = \sqrt{x} + 2$

2) $y = 2\sqrt{x}$

3) $y = \sqrt{x-3}$

4) $y = \frac{1}{2}\sqrt{x+1}$

5) $y = -\sqrt{x} + 4$

6) $y = \sqrt{x+2} - 3$

7) $y = \sqrt{-x} + 2$

8) $y = \sqrt{-x-3} + 1$

Cubic Graphing - Thursday, 2/12

Graph each function. Then state the domain, range and intercepts.

1) $y = x^3 + 1$

2) $y = -(x+1)^3$

3) $y = 2x^3 - 3$

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

5) $y = 2(-(x-2))^3 + 2$

6) $y = (x+3)^3 - 3$

7) $y = -(x+4)^3 - 2$

8) $y = -(x+4)^3 - 2$

9) $3y - 4x = 24$

10) $y = 2|x-3| + 2$

11) $y = -\sqrt{-(x+4)} - 2$

12) $y = -(x+2)^2 + 4$