

**Algebra 2 Honors**  
**Feb 19 to Mar 20**

Date	Topic	Assignment
Thursday 2/19	8.4 - Simplify Rational Expressions	P.577 (3-5, 7-15 odd, 30,31)
Friday 2/20	8.4 - Simplify Rational Expressions	Worksheet
Monday 2/23	8.4 - Multiply/Divide Rational Expressions	P.578 (21,22, 25-43 odd)
Tuesday 2/24	8.4 - Multiply/Divide Rational Expressions	Continued
Wednesday 2/25	8.5 - Add/Subtract Rational Expressions	P.586 (3-7 odd, 17-29 odd)
Thursday 2/26	8.5 - Complex Fractions	P.587 (31-36, 38, 39)
Friday 2/27	8.5 - Complex Fractions	P.587 (41,42)
Monday 3/2	Quadratic and Factoring review	
Tuesday 3/3	Quadratic and Factoring review	
Wednesday 3/4	District Assessment	<b>District Assessment - Algebra II (4th Test)</b>
Thursday 3/5	8.6 - Solving Rational Equations	P.593 (7-25 odd)
Friday 3/6	8.6 - Solving Rational Equations	P.593 (4-24 even)
WEEK OF 3/9 - 3/13	SPRING BREAK	
Monday 3/16	8.2 - Rational Parent Graph	P. 561 (4,10, 11-21 odd) State: Domain, Range, intercepts, asymptotes and graph
Tuesday 3/17	8.2/8.3 - Graphing Rational Functions	P. 562 (27,31) P.569 (15,16,18) State: Domain, Range, asymptotes, graph
Wednesday 3/18	8.3 - Graphing Rational Functions	Worksheet
Thursday 3/19	8.3 - Writing Rational Functions from a graph	Worksheet
Friday 3/20	<b>TEST 4.1 - Basic Rational Functions - Simplify, Add/Sub/Mult/Div, Solve</b>	

**Simplify Rational Expressions - Friday, 2/20**

Simplify the following rational expressions.

$$1) \frac{5x^2 - 9x - 2}{4x^2 - 7x - 2} \quad 2) \frac{27 - 12x^2}{4x^2 - 2x - 12} \quad 3) \frac{x^4 - c^4}{(x+c)^2(x^2+c^2)} \quad 4) \frac{9 - 4x^2}{6x^2 - 5x - 6}$$

$$5) \frac{x^3 + x^2 - x - 1}{x^3 - x^2 - x + 1} \quad 6) \frac{x^3 - x^2y + xy^2 - y^3}{x^4 - y^4} \quad 7) \frac{x^3 + 27}{x^2 - 9}$$

$$8) (x^4 - 5x^3 + 6x^2)(9x - x^3)^{-1} \quad 9) (1 - x^3)(1 - x)^{-3} \quad 10) (a - x)^2(x^2 - a^2)^{-1}$$

$$11) \frac{8x^{-2}y^4(x-y)^2}{-16x^4y^{-7}(x^2-y^2)} \quad 12) \frac{(3x^{-2})^2(x^2-9)}{(2x^3)^{-2}(3x-x^2)}$$

### Graphing Rational Functions - Wednesday, 3/18

For each of the following: (a) state the domain, (b) state the ordered pair of any holes the graph may have, (c) write the equations of the asymptotes, (d) find the intercepts, (e) sketch a graph of the function

1.)  $y = \frac{(x-7)(x+2)}{(x-3)(x+1)}$

2.)  $y = \frac{3x^2+1}{x^2-1}$

3.)  $y = \frac{-3x}{x+2}$

4.)

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

5.)  $y = \frac{x-1}{2x+3}$

6.)  $y = \frac{2x^3}{x^3-9x}$

7.)  $y = \frac{x^2+2x-3}{x-1}$

8.)  $y = \frac{2x^2+4x}{2x^2+x-1}$

9.)  $y = \frac{(2x-1)(2x+1)}{4x^2}$

10.)  $y = \frac{(x+1)(x-2)}{(x-4)(x+2)}$

11.)  $y = \frac{3x^2-6x}{3x}$

12.)  $y = \frac{3x^2}{5x^2-10x}$

### Graphing Rational Functions and writing equations of Rational Functions - Thursday, 3/19

For each of the following: (a) state the domain, (b) state the ordered pair of any holes the graph may have, (c) write the equations of the asymptotes, (d) find the intercepts, (e) sketch a graph of the function

1.)  $y = \frac{7x^2-3x}{x^3-4x}$

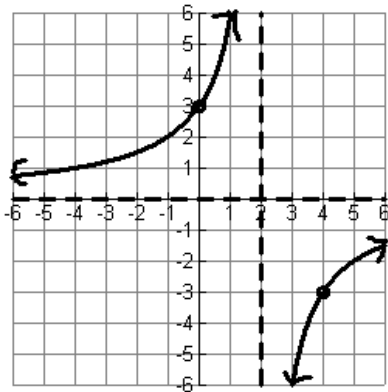
2.)  $y = \frac{x^2+4x+4}{(x+2)(x-3)^2}$

3.)  $y = \frac{x^2-5x+6}{x^2+x-2}$

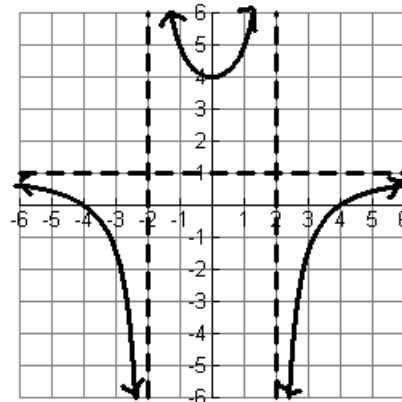
4.)  $y = \frac{x^3+3x^2+2x}{x^2-x}$

Write the equation for each of the following graphs:

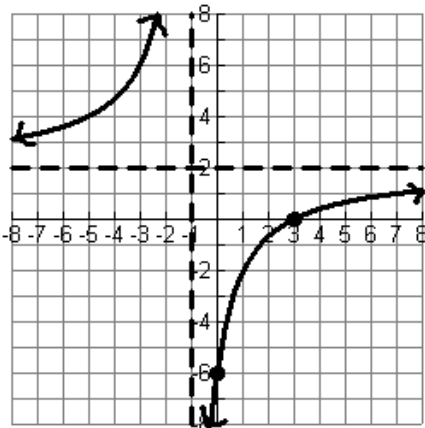
5)



6)



7)



8)

