

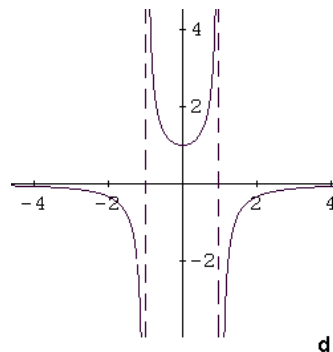
Unit 3 Learning Targets

Name _____ Date _____ Period _____

Learning Target	Assessment	M.L. 4	M.L. 3	M.L. 2	M.L. 1
1. I can multiply & divide rational expressions.	3.1 Worksheet 3.1-3.2 Quiz 3.1-3.5 Review 3.1-3.5 Test				
2. I can add & subtract rational expressions.	3.2 Worksheet 3.1-3.2 Quiz 3.1-3.5 Review 3.1-3.5 Test				
3. I can identify the domain of a rational function.	3.3 Worksheet 3.3-3.4 Quiz 3.1-3.5 Review 3.1-3.5 Test				
4. I can find the asymptotes of a rational function.	3.3 Worksheet 3.3-3.4 Quiz 3.1-3.5 Review 3.1-3.5 Test				
5. I can graph rational functions and identify the zeros, asymptotes, holes and end behavior.	3.4 Worksheet 3.3-3.4 Quiz 3.1-3.5 Review 3.1-3.5 Test				
6. I can solve simple rational equations in one variable.	3.5 Worksheet 3.1-3.5 Review 3.1-3.5 Test				
7. I can identify when an extraneous solution will occur.	3.5 Worksheet 3.1-3.5 Review 3.1-3.5 Test				
8. I can solve simple rational inequalities in one variable.	3.5 Worksheet 3.1-3.5 Review 3.1-3.5 Test				
9. I can break a rational fraction into several fractions (partial fractions).	3.6 Worksheet 3.1-3.5 Review 3.1-3.5 Test				

Mastery Level 4 = I've got this - I can teach this to others. **Mastery Level 3** = I understand - I can do this by myself. **Mastery Level 2** = I mostly get it - I can do this with help. **Mastery Level 1** = I don't understand - I cannot do this yet.

$$\begin{aligned} \frac{4x-1}{x+4} - \frac{2x-9}{x+4} &= \frac{(4x-1)-(2x-9)}{x+4} \\ &= \frac{4x-1-2x+9}{x+4} \\ &= \frac{2x+8}{x+4} \\ &= \frac{2(x+4)}{x+4} = 2 \end{aligned}$$



$$\frac{12}{x-1} - \frac{8}{x} = 2 \quad \Rightarrow \quad \text{LCD: } (x-1)x$$

- 1) Multiply by LCD: $\frac{12(x-1)x}{x-1} - \frac{8(x-1)x}{x} = 2(x-1)x$
- 2) Cross Out: $12x - 8(x-1) = 2x(x-1)$
- 3) Distribute: $12x - 8x + 8 = 2x^2 - 2x$
- 4) Set = 0: $0 = 2x^2 - 6x - 8$
- 5) Divide by 2: $x^2 - 3x - 4 = 0$
- 6) Factor: $(x-4)(x+1) = 0$
- 3) Solve: $x = 4$ or $x = -1$