

HA2: Unit 6: Rational Expressions Assignment Sheet

Date	Day	Objectives	Assignments
Thurs., 11/3	1	➤ reduce, multiply, & divide rational expressions	p. 501 2-20 evens; 28-32 evens
Fri., 11/4	2	➤ add & subtract rational expressions	p. 507 10-20 evens; 32-40 evens
Mon., 11/7	3	➤ add & subtract rational expressions	TBD
Tues., 11/8	4	➤ Review multiplying, dividing, adding and subtracting	TBD
Wed., 11/9	5	➤ QUIZ ➤ Rate of Work	p. 515 # 24, 25, 32
Thurs., 11/10	6	➤ solving equations with rational expressions using cross product or multiplying by the LCD ➤ Restricted values	p.515 #6, p.516 40-52 evens <ul style="list-style-type: none"> • Name LCD • List restricted values • Solve
Fri., 11/11		➤ <i>No School</i>	
Mon., 11/14	7	➤ Solving equations ➤ Horizontal and Vertical Asymptotes	Review Worksheet
Tues., 11/15	8	➤ Horizontal and vertical asymptotes ➤ Graphing rational functions ➤ Translating rational functions	p. 830 in textbook # 7 – 14 List horizontal and vertical asymptotes <u>DO NOT GRAPH</u>
Wed., 11/16	9	➤ Review	Finish review and STUDY!
Thurs., 11/17	10	➤ TEST	

Unit 6 Rational Expressions Notes

Adding & Subtracting Fractions:

1. Find the LCD: factor all polynomials (if they have 2 or more terms)
list all common factors once as well as all other factors
2. Change to equivalent fractions
Compare old denominator to the new one
Multiply the numerator by the new factors
3. Add/subtract the numerators; keep the denominator
4. Reduce (factor numerator & denominator to check for common factors to cancel)

Multiplying & Dividing Fractions:

1. Factor all numerators & denominators that have two or more terms
2. If it is division, change to multiplying by the reciprocal of the second fraction
3. Cancel common factors
(one numerator factor that is the same as one denominator factor)

Rate of Work: part of job done = $\frac{\text{time worked}}{\text{time alone}}$

Vertical Asymptotes: Set the denominator equal to zero & solve.

Horizontal Asymptote(s): First, find the degrees of the numerator and denominator.

BOBO → bigger on bottom, HA at $y = 0$

BOTN → bigger on top, no HA

EATS DC → exponents are the same, HA at $y =$ (number you get when you divide the leading coefficients)

Review of factoring:

- a) check for GCF
- b) if 2 terms: check for difference of two squares: $a^2 - b^2 \dots\dots(a + b)(a - b)$
check for sum or difference of 2 cubes: $a^3 + b^3 \dots\dots(a + b)(a^2 - ab + b^2)$
 $a^3 - b^3 \dots\dots(a - b)(a^2 + ab + b^2)$
- c) if 3 terms: trial and error
- d) if 4 terms: use grouping