

MHCC Approaches to math topics:

Topic	We Don't Do This...	We Do This...	You Can Learn About It Here...
Adding Fractions	Find common denominators using prime factors and write complex procedure.	Draw pictures. Make each fraction out of the same size pieces.	20: 10.1-10.2
Order of Operations	PEMDAS	Terms	20: ch 2 60: 1.1
Distributive Property	Use this term less: FOIL (Be careful as it only works with multiplying two 2-term expressions. Also, it implies a need for order that isn't there.)	Use this idea more: Multiply every term in one factor by every term in the other factor.	65: 4.1
Slope	$m = \frac{y_2 - y_1}{x_2 - x_1}$	First, make a rough sketch of known points to visualize hor & ver change slope = $\frac{\text{output change}}{\text{input change}}$ slope = $\frac{\text{rise}}{\text{run}}$	65: 12.1-12.2 95: 2.1, 2.2
Solving Rational Equations	Change denominators to a common denominator	Clear the equation of denominators, using the least common denominator	60: 4.3 65: 9.3
Absolute Value Inequalities	Solve Algebraically by translating to multiple inequalities.	Solve Graphically	95: 4.3
Factoring Trinomials	Factoring Trinomials	Solve equations like $x^2 + 7x + 12 = 0$ using the quadratic formula.	95: 7.2-7.3

Things you might not have seen before:

Topic	We do this...	You Can Learn About It Here...
Build/Reduce Fractions as Prealgebra in Math 20	$\frac{8}{12} = \frac{4 \cdot 2}{4 \cdot 3} = \frac{2}{3}$ (This is how we reduce fractions in algebra – write in factored form and cancel factors.)	20: 6.1-6.2
One-Step Entry	We enter complicated expressions into a calculator in one step, i.e. only hitting equals once. Use parentheses to show any needed grouping. EX: $\frac{14.2 - 3.67}{5 * (-2.5)} - \sqrt{7.2 + 322}$ Calc entry: $(14.2 - 3.67) / (5 * (-2.5)) - \sqrt{(7.2 + 322)}$	20: 2.3 60: 1.2
Verify a solution to a literal equation (formula)	Solve $R = \frac{c - s}{t}$ for s Get $s = Rt + c$ To verify, choose values for R, t & c and plug them into your solution. Then use your chosen values and the calculated value for s and plug them into the original to verify your solution.	60: 6.2
Modeling Patterns from tables	When asked to write an equation from a situation, first write a table. In the table, write expressions for each value. Look for relationships between columns, not rows.	60: 3.1, 5.2 95: 1.1
Estimate logs in Math 111	$\log_3 11$ is between 2 and 3 since $3^2 = 9$ and $3^3 = 27$	Math 111 supplement (or math 95 book) chapter 10
Estimate trig functions from unit circle in Math 112	$\sin(70^\circ) \approx 0.9$ since an angle of 70° hits the units circle at about a y-value of 0.9	Ask a Math instructor. 