What's Going On?

Checking In	Homework Logs
Minds on	Two Column Quiz
Action!	The Big Question
Consolidation	Any Questions?

Learning Goal - I will be ready for tomorrow's test!

Minds on

F.F.M.

Simplify and state restrictions.

$$\frac{4x}{x^2+6x+8} - \frac{3x}{x^2-4}$$

1. Factor!

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

2. Get a common denominator... multiply the first term by $\frac{(x-2)}{(x-2)}$ and the second term by $\frac{(x+4)}{(x+4)}$. *They both already have $(x+2)$ in their denominators so we don't need to multiply by $(x+2)$.

$$\frac{(x-2)}{(x-2)}\frac{4x}{(x+2)(x+4)} - \frac{(x+4)}{(x+4)}\frac{3x}{(x+2)(x-2)}$$

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

*Restrictions → $x \neq \pm 2, -4$

3. Simplify the numerator.

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

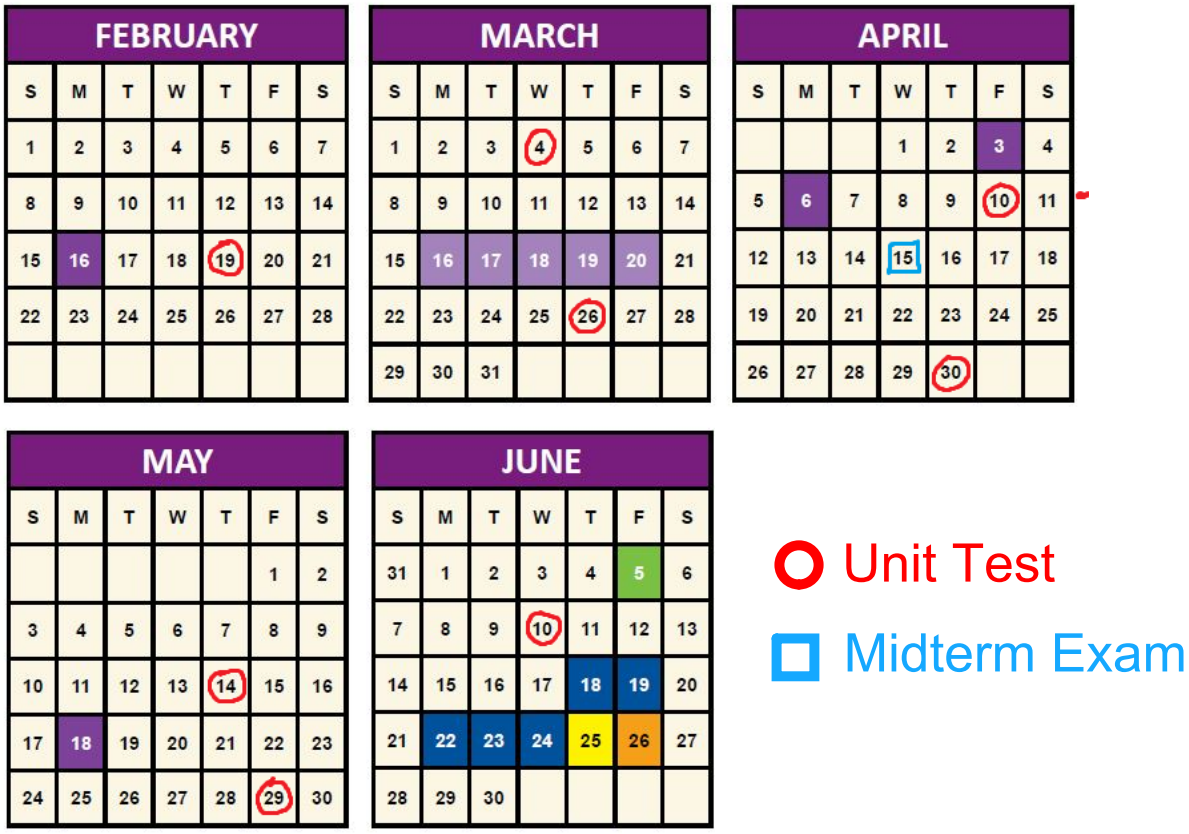
*expand into brackets because of subtraction

$$= \frac{4x^2 - 8x - (3x^2 + 12x)}{(x+2)(x-2)(x+4)}$$

$$= \frac{4x^2 - 8x - 3x^2 - 12x}{(x+2)(x-2)(x+4)}$$

$$= \frac{x^2 - 20x}{(x+2)(x-2)(x+4)} \; ; x \neq \pm 2, -4$$

Planning Ahead



Action!

The Big Questions

I have put together a few questions that capture the major concepts of this unit.

Please do not assume that these questions represent everything you need to be able to do from the unit.

Factoring will, obviously, be a major component of the test and you should expect to see several application-type problems.

Consolidation

Gut Check Time