

Teaching Notes For Homework #8

War Game

Practice War Game Problems:

- $\frac{294}{132} \cdot \frac{33}{252}$
- $\frac{288}{108} \cdot \frac{72}{18} \cdot \frac{48}{64}$ *if everyone dies on the top or bottom there is always a 1 left
- $\frac{36}{20} \cdot \frac{15}{54}$

Monsters Meet Fractions

Remind students how to do a regular monster, like $\sqrt[3]{54}$. When you put a big monster on a fraction it's the same as putting a monster on the top number and another one on the bottom number. Then simplify the monster like normal and finish with a war game.

Practice Monster Fraction Problems:

- $\sqrt{\frac{9}{16}} \rightarrow \frac{\sqrt{9}}{\sqrt{16}}$
- $\sqrt[3]{\frac{686}{242}}$
- $\sqrt[6]{\frac{1}{64}}$

This is another easy week. Use this time to make sure students are comfortable with everything covered so far. We will also use this extra time to introduce an advanced concept.

Math God

Any problem with an equal sign is a math god problem. Math gods normal have letters in them. So first we need to talk about who plays together.

Who plays together?

$$5x + 3y + 7x^2 + 4x - 2$$

Only guys that look **exactly** the will play together so since the 5 and 4 are little single x guys they will play together but no one else will.

$$9x + 3y + 7x^2 - 2$$

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Sample problem:

$$-3^2 - 3(2x - 3) - 8^0 + 2x - 18 \div 9(-1 - 1) = -(-1 - 2)^2 - 2^3 - 4(3x + 2) - 2x - 1^8$$

First, draw a line right down the middle over the equal sign. The numbers can never cross the wall. Run the order of operations on the left and right side of the wall until you can't do anymore. If there is an x guy on both sides of the wall, you must kill an x guy first. However, as math god, if you put something on the left you must also put the same thing on the right side to keep the world in balance. Now that you have one x , he wants to be alone. As math god, we want to help x . Kill who's bothering x , remembering to always kill who's is furthest away first.

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