6th Grade Math NTI Lesson Plans 9-16

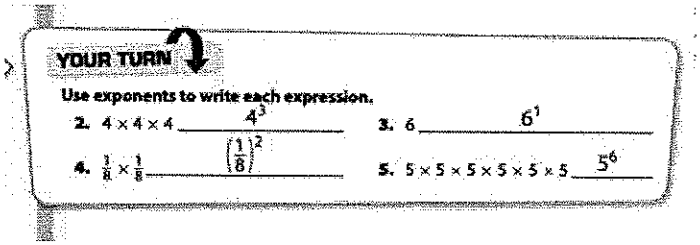
NTI Lesson Day 9

Concept: Exponents
Standard Connection: 6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
Learning Target: I can interpret an exponent as repeated multiplication of the base.

Guided Learning:
1. Complete the "Writing Ratios Warm Up"

2. Use the attached YouTube videos for resources.
   Video Search Title - What is an exponent? Common Core Algebra I
   Video Search Title - Math Antics - Intro To Exponents (aka Indices)
   Video Search Title - Introduction to Exponents

3. Read through GO Math Book page 238 "Exponents" and "Example 1". Complete the "Your Turn" #2-5 for practice. This page does not have to be turned in to the teacher. It is for you to practice. I have attached an answer key for the "Your Turn" #2-5. Use the answer key as a self check.


YOUR TURN

Use exponents to write each expression.

2. $4 \times 4 \times 4$ ___4^3___ 3. 6 ___6^1___

4. $\frac{1}{8} \times \frac{1}{8}$ ___$\left(\frac{1}{8}\right)^2$___ 5. $5 \times 5 \times 5 \times 5 \times 5 \times 5$ ___5^6___

4. Complete the following 6th Grade IXL Skills: D.1 "Write multiplication expressions using exponents"

5. Complete the following 5th Grade IXL Skills: E.1 "Understanding exponents" (Yes, this is under the 5th grade learning tab because the 6th grade learning tab does not have "Understanding exponents") ;)

6. Complete the "Exponents Learning Check"

NTI Lesson Day 10

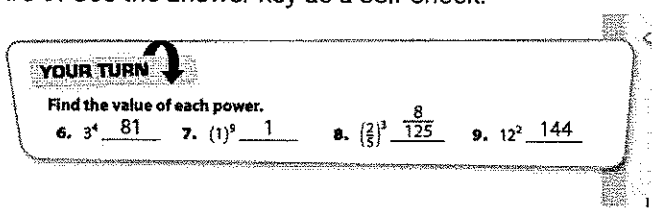
Concept: Exponents
Standard Connection: 6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
Learning Target: I can evaluate the value of the power.

*Yes, you may use a calculator for this lesson.

Guided Learning:
1. Complete the "Unit Rates Warm Up"

2. Use the attached YouTube videos for resources.
   Video Search Title - Exponents - A Mathematical Shortcut
   Video Search Title - Powers and exponents
   Video Search Title - Basics Of Exponents

3. Read through GO Math Book page 239 "Finding the Value of a Power" and "Example 2". Complete the "Your Turn" #6-9 for practice. This page does not have to be turned in to the teacher. It is for you to practice. I have attached an answer key for the "Your Turn" #6-9. Use the answer key as a self check.


YOUR TURN

Find the value of each power.

6. 3^4 ___81___ 7. $(1)^9$ ___1___ 8. $\left(\frac{2}{5}\right)^3$ ___$\frac{8}{125}$___ 9. 12^2 ___144___

4. Complete the following 6th Grade IXL Skills: D.2 "Evaluate Exponents"

5. Complete GO Math Book page 240 #1-20.

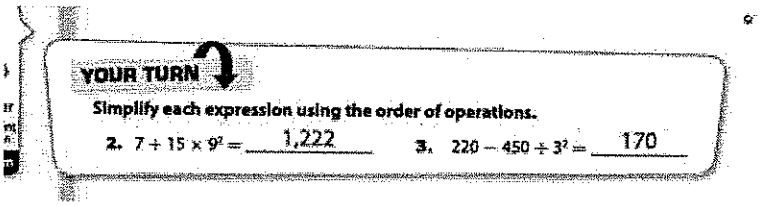
NTI Lesson Day 11

Concept: Order of Operations with Exponents
Standard Connection: 6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
Learning Target: I can evaluate numerical expression with exponents.

Guided Instruction:
1. Complete the "Rates Warm Up"

2. Use the attached YouTube videos for resources.
Video Search Title - Order of Operations Song | PEMDAS Rap for 5th Grade and Up
Video Search Title - Order of Operations! (With 6 Examples)

2. Read through GO Math Book page 250 "Example 1". Complete the "Your Turn" #2-3 for practice. This page does not have to be turned in to the teacher. It is for you to practice. I have attached an answer key for the "Your Turn" #2-3. Use the answer key as a self check.

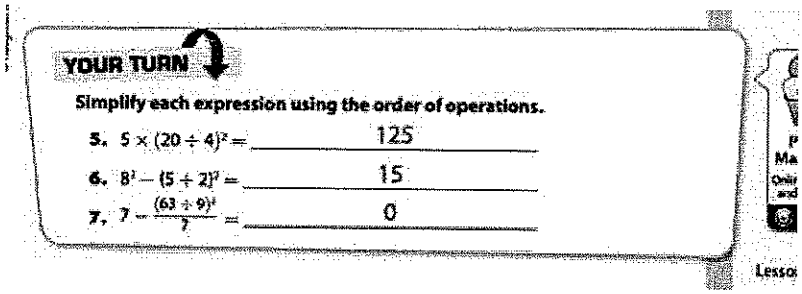

YOUR TURN

Simplify each expression using the order of operations.

2. $7 + 15 \times 9^2 =$ 1,222

3. $220 - 450 \div 3^2 =$ 170

3. Read through GO Math Book page 251 "Example 2". Complete the "Your Turn" #5-7 for practice. This page does not have to be turned in to the teacher. It is for you to practice. I have attached an answer key for the "Your Turn" #5-7. Use the answer key as a self check.


YOUR TURN

Simplify each expression using the order of operations.

5. $5 \times (20 \div 4)^2 =$ 125

6. $8^2 - (5 + 2)^2 =$ 15

7. $7 - \frac{(63 \div 9)^2}{7} =$ 0

4. Complete the attached "Order of Operations with Exponents."

5. Complete the "Order of Operations Learning Check"

NTI Lesson Day 12

Concept: Order of Operations with Exponents
Standard Connection: 6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
Learning Target: I can evaluate numerical expressions with exponents.

Guided Instruction:
1. Complete the "Decimals Operation Warm Up"

2. Use the attached YouTube videos for resources.
Video Search Title - Order of operations examples: exponents | Arithmetic operations | 6th grade | Khan Academy
Video Search Title - Order of Operations: PEMDAS (Now called GEMDAS)

3. Complete the attached "Order of Operations with Exponents." This assignment will count as your learning check for the day.

NTI Lesson Day 13

1. Complete the "Greatest Common Factor Warm Up"

2. Today's assignment is to practice and review for your Exponents and Order of Operations Quiz tomorrow (NTI Lesson Day 14).

Login in to my.hrw.com
Username: firstnamelastname@fcems
Password: password

*Remember, you can look at examples and step-by-step options for assistance.

NTI Lesson Day 14

1. Complete the "Opposites and Integers Warm Up"

To complete the quiz...

Login in to my.hrw.com
Username: firstnamelastname@fcems
Password: password

NTI Lesson Day 15

1. Complete the "Decimals Operation Warm Up"

2. Your assignment today is to work on your speech or demonstration for Communication Day. You will be receiving credit for your speech or demonstration for Math Class. Once you have finished your speech or demonstration. You can upload a video of your speech or demonstration to this assignment. Please see attached video on how to upload a video to an assignment. You can also attach a copy of your speech as well.

**If you are using paper copies, then you will turn in your speech or demonstration once we return.

NTI Lesson Day 16

1. Complete the "Integers Warm Up"
2. Today, your assignment is to review over the listed IXL Skills as well as finish any assignments you have not completed. They are due April 20th. You many also complete and finish your speech or demonstration. This will need to be posted as well.

6th Grade IXL Skills:

- B.3 "Multiply whole numbers with four or more digits"
- C.6 "Divide whole numbers - 3 digit divisors"