Lesson Plan, **6-9pm, Thursday, 11 October, 2018 HE rm. 211, SDCE, North City Campus**

Instructor: Ms. S. D. Jones

In our **Learning Toolbox:**
Where to find information about voting: the local **Public Library!!**

**Vocabulary:**
Copy into your notes, and **Mind Map** each word:

<table>
<thead>
<tr>
<th>Reading Comp. Vocab.</th>
<th>Grammar Vocabulary</th>
<th>Math Vocabulary</th>
<th>Test-taking Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation of powers</td>
<td>Essay Writing review</td>
<td>Negative exponents</td>
<td>Breaking tasks down</td>
</tr>
<tr>
<td>Checks and balances</td>
<td>Thesis sentence</td>
<td>Fractional Exponent</td>
<td>Time management</td>
</tr>
<tr>
<td>Judiciary</td>
<td>Supporting sentences</td>
<td>Negative Exponents</td>
<td>scheduling</td>
</tr>
<tr>
<td>Judicial Branch</td>
<td>Rebuttal sentences</td>
<td>Fractional Exponents</td>
<td>Monitoring progress</td>
</tr>
<tr>
<td>State Supreme Courts, the US Supreme Court</td>
<td>Transitional sentences</td>
<td>Adding/multiplying Exponents</td>
<td>Keeping track of progress</td>
</tr>
</tbody>
</table>

6pm:  
**Write** one or two sentences explaining what you think might be the differences between the lower level courts and the federal courts.

6:02  
Continue on work from your folder (on Reading/Literature/Science/Social Studies).

**7pm:**  
Stand up & Stretch, if you wish...

**7:00 to 7:07** Reading Comprehension

**7:07 to 7:15** Grammar lecture, using the passage below.

**7:15 to 7:25** Math lecture, also using this same passage.

**7:25-7:30** We do 1st question/problem from each online worksheet together, then you finish the online activities from all lectures individually on the classroom computers.

**Mathematics work online and/or in books from 7:45 until 8:45.**

7:00-7:07:  
**Reading Comp.:** Essay organizing and compound sentences

**Today’s Passage:**  
“**Learning from his mistake**

Herman talked to his friend, Mia, and she told him that he shouldn’t get upset about his bad grade since mistakes are learning opportunities and just a part
of the learning process! She suggested that instead of getting discouraged or
giving up, he should reflect on his mistakes, see why he made those mistakes,
and then think of ways that he could avoid making the same mistakes again.
It’s a feedback opportunity!
Mia encouraged Herman to go to tutoring and ask for help figuring out a
different learning strategy.
When Herman showed up to tutoring, his teacher gave him a few pointers on
different learning strategies that might improve his understanding of concepts
he was learning in history. Instead of memorizing facts and events, the
teacher suggested he spend a little bit more time thinking about and
answering the question why. His teacher encouraged Herman to retake the test
and try again after giving this new learning strategy a try.”
(Today’s reading comes from
https://www.khanacademy.org/partner-content/learnstorm-growth-mindset-activities-us/high-school-activities/modal/a/activity-3-part-1-mistakes
-are-puzzle-pieces-hs...)

Where are the Grammatical errors?

7:07 Grammar Essay writing part4/4:: review of the four main parts of an Essay
Recall that an essay should have at least four paragraphs (¶):
Introduction, with your Thesis Sentence,
Body paragraphs, with your pros and cons, and
Conclusion paragraph, summarizing your argument or topic.

Please start writing an introductory paragraph, using your thesis sentence and
your essay outline.

7:15 Mathematics Topic: Exponents and Radicals, good friends that go together.

Why would we want to convert between forms of expression? Sometimes a problem
is easier to solve in an equivalent form...

Exponents rules and properties

<table>
<thead>
<tr>
<th>Rule name</th>
<th>Rule</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative exponents</td>
<td>$b^{-n} = 1 / b^n$</td>
<td>$2^{-3} = 1/2^3 = 0.125$</td>
</tr>
</tbody>
</table>
Notice that a negative exponent jumps the fraction bar, so $b^{-n} = 1 / b^n$

\[
m\sqrt{(b^n)} = b^{n/m} \quad b^{1/n} = n\sqrt{b}
\]

So, exponents really are just radicals in a different form!

Let’s chart some Ways to Express Any Number X

<table>
<thead>
<tr>
<th>#</th>
<th>Quantity</th>
<th>Fractional Exponents</th>
<th>Radical form</th>
<th>multiply exponent</th>
<th>fraction</th>
<th>decimal</th>
<th>percent</th>
<th>Por Ciento</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>(64)(^{1/2})</td>
<td>(64)</td>
<td>4*2</td>
<td>8(^1)</td>
<td>64/2, 8/1</td>
<td>8.0</td>
<td>800%</td>
<td>800/100</td>
</tr>
<tr>
<td>3(^1)</td>
<td>(1/9)(^{1/2})</td>
<td>(1/9)</td>
<td>33/99</td>
<td>3(^{-1})</td>
<td>1/3</td>
<td>.3333</td>
<td>33%</td>
<td>33/100</td>
</tr>
<tr>
<td>12</td>
<td>(144)(^{1/2})</td>
<td>(144)</td>
<td>12<em>1, 3</em>2(^2)</td>
<td>12(^1)</td>
<td>12/1, 24/2</td>
<td>12.000</td>
<td>1200%</td>
<td>1200/100</td>
</tr>
<tr>
<td>3</td>
<td>9(^{1/2})</td>
<td>(9)</td>
<td>3(^1), 3(^3)</td>
<td>3(^1)</td>
<td>9/3, 12/4</td>
<td>3.00</td>
<td>300%</td>
<td>300/100</td>
</tr>
<tr>
<td>27</td>
<td>(27*27)(^{1/2})</td>
<td>(27*27)</td>
<td>3<em>3</em>3</td>
<td>3(^1)*3(^2)</td>
<td>27/1</td>
<td>27.00</td>
<td>2700%</td>
<td>2700/100</td>
</tr>
</tbody>
</table>

Now, let’s do the first online math worksheet problem together:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-negative-exponents/e/exponents_2

7:30

1.) Please finish your outline, Thesis sentence, and a few sentences of your Introductory Paragraph, and

2.) Please do the remainder of online math worksheet:
https://www.khanacademy.org/math/pre-algebra/pre-algebra-exponents-radicals/pre-algebra-negative-exponents/e/exponents_2

8:40 Exit Questions: 1. Please write one sentence explaining how you can use a chart to show various forms of the same number.

2. What is a rebuttal?

3. What is the Distributive Property?

4. Show, using exponents, why the square root of five, multiplied by itself, is equal to 5.

8:45 Turn in Exit Slip, Dismissal