

Lesson Plan, **6-9pm, Tuesday, 23 October, 12018 HE rm. 211**, SDCE, North City Campus
 Instructor: Ms. S. D. Jones

In our Learning Toolbox:

What is a mind map, and how are images, colors, and connections useful for memory?

Vocabulary:

Copy into your notes, and Mind Map each word:

<u>Reading Comp. Vocab.</u>	<u>Grammar Vocabulary</u>	<u>Math Vocabulary</u>	<u>Test-taking Skills</u>
Who really benefits from this policy/law?	colons	Identifying Similar triangles	Processes to remember
Jury/Testify/vote	Independent clauses	Congruent	Process of elimination
Jim Crow	Lists of items	Similar	Substitution

(see: <https://www.uclalawreview.org/wp-content/uploads/2016/02/Carlin-final-article-no-bleed.pdf>)

6pm:

Write one or two sentences explaining what you think might be the differences between two consecutive odd numbers and two consecutive even numbers.

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.:

Today's Passage:

“As Reconstruction came to an end in the late 1870s, Southern elites reclaimed many state governments. with this new power, restrictive regulations known as Jim crow Laws, which denied African Americans equal opportunities and rights, were put into place: for the next eighty years.” (Today's reading comes from P. 257 in Peterson's *Master the HiSET, 2nd Edition* See also:

[https://www.uclalawreview.org/wp-content/uploads/2016/02/Carlin-final-article-no-bleed.pdf...](https://www.uclalawreview.org/wp-content/uploads/2016/02/Carlin-final-article-no-bleed.pdf))

Where are the Grammatical errors in this passage?
 Did former slave owners want equality with their former slaves?
 Were all white Southerners slave owners?
 How might northern factory owners have benefited from freeing the slaves?
 Did *all* slaves benefit immediately from being freed, after the Civil War?

7:07-7:15 Grammar: Colons

Rules: **(note that colons can be used instead of semicolons to separate independent clauses, but that is very rare)**

<p>Use a colon to introduce an item or a series of items. Do not capitalize the first item after the colon (unless it's a proper noun).</p>	<p>Examples: <i>You know what to do: practice.</i> <i>You may be required to bring many things: sleeping bags, pans, utensils, and warm clothing.</i> <i>I want the following items: butter, sugar, and flour.</i> <i>I need an assistant who can do the following: input data, write reports, and complete tax forms.</i></p>
<p>source:</p>	<p>https://www.grammarbook.com/punctuation/colons.asp</p>

Please **write one sentence using a colon**, for example: “Dr. King wrote *Where Do We Go from Here: Chaos or Community?* in 1967.

(book title in italics from GrammarBook.com:
<https://data.grammarbook.com/blog/capitalization/titles-of-books-plays-articles-etc-underline-italicize-use-quotations-marks/>)

Let’s do the first question from our grammar activity:
<https://www.khanacademy.org/humanities/grammar/punctuation-the-colon-semicolon-and-more/introduction-to-colons/e/introduction-to-colons>

7:15 Mathematics Topic: Similar and Congruent Triangles (Source: Euclid's Elements)

Let's review how to solve a ratio: $3/x = x/27$.

$$3/x = x/27 \rightarrow x^2 = 81 \rightarrow x = \pm 9$$

(Btw, here is why cross-multiplying works: "With algebra, it's almost obvious, and certainly not something special. I'll try to express this in a way that students who don't know algebra (or don't realize how much of it they have already seen) can follow.

Remember that if you have two equal quantities and multiply them by the same amount, the products will again be equal. So if we multiply the fractions a/b and c/d by b , the results are equal:

$$\frac{a}{b} * b = \frac{c}{d} * b$$

which can be written as

$$a = \frac{bc}{d}$$

Now we can multiply both fractions by d :

$$ad = \frac{bc}{d} * d$$

which, of course, means

$$ad = bc$$

I personally prefer not to cross multiply, but just to multiply by whichever denominator helps. In your example, $3/15 = n/30$, I would just multiply both sides by 30 and get

$$\begin{aligned} n &= 30 * 3/15 \\ &= 30/15 * 3 \\ &= 2 * 3 \\ &= 6. \end{aligned}$$

- Doctor Peterson, The Math Forum
<http://mathforum.org/dr.math/>) source:
<http://mathforum.org/library/drmath/view/60677.html>

Why did I start with a ratio? Because *similar triangles are proportional*, or in a *ratio relationship, with one another*. *Congruent* triangles are also in a ratio: one to one. So still, all the side lengths of one triangle are proportional to the corresponding side lengths of the other triangle.

The ratio in a similar triangle is $1::x$, and in a corresponding triangle, $1::1$.

All angles equal but sides not equal in length:	Similar: all equilaterals, all 45-45-90 triangles
All angles and all sides equal in measure:	Congruent

Now, let's do the online math practice problem together:

https://www.khanacademy.org/math/geometry/hs-geo-similarity/hs-geo-triangle-similarity-intro/e/similar_triangles_1

7:30

1.) Please do the rest of our online grammar worksheet:

<https://www.khanacademy.org/humanities/grammar/punctuation-the-colon-semicolon-and-more/introduction-to-colons/e/introduction-to-colons>

and

2.) Please do the remainder of online math worksheet:

https://www.khanacademy.org/math/geometry/hs-geo-similarity/hs-geo-triangle-similarity-intro/e/similar_triangles_1

8:40 **Exit Questions:** 1. Please **write** one sentence explaining why congruent triangles are a special case of similar triangles. Could you use the same analogy with rectangles and squares? (yes/no)

2. What are similar triangles?

3. Please write the square root of 9 in both radical and fractional exponent forms. (for example: $\sqrt{64}$, $(64)^{1/2}$)

4. Is this sentence a compound sentence? (yes/no)

8:45 Turn in Exit Slip, Dismissal