

Taking Notes from a Math Video

A. BEFORE WATCHING A VIDEO

Take out your notebook/paper, a pencil/eraser, and earphones. Optional: highlighters, markers.

At the top of your note page, write:

- the power focus area name
- the objective listed on the playlist
- the title of the playlist resource
- the date

WHY? This info allows you to recall the content of your notes and the resources you referenced in the future.

B. WHILE WATCHING A VIDEO

What You Can Do On Your Computer	What Your Notes Should Look Like
<ul style="list-style-type: none">• Use the PAUSE and PLAY feature to stop the video and finish your notes before moving on to the next part of the video• REPLAY specific parts of the video that seem confusing• FAST FORWARD if you feel like a specific video segment is redundant or irrelevant (careful! don't fast forward too much...)	<p>Start...</p> <ul style="list-style-type: none">• by writing down any formulas, rules or definitions which are related to the objective. <p>Next...</p> <ul style="list-style-type: none">• include/copy examples which applies the formulas or rules that you just learned.• organize your examples neatly: "Example 1," "Example 2," etc.• record a variety of different examples related to the concept.• include diagrams or visuals of the concept which could be helpful• write side comments to yourself which elaborate on the concept• use arrows, boxes, tables and other technical writing tools to connect ideas together <p>When You Get Confused...</p> <ul style="list-style-type: none">• Immediately write down a question that you have or the place where you are confused (record the time in the video when this occurs!)

C. AFTER WATCHING A VIDEO

Tip	Example
Summarize the objective's main ideas in your notes	<i>When we want to find out how a function's graph moves, we look at the function in vertex form. For example, a quadratic function has the vertex form of $y = a(x - h)^2 + k$. This form is really helpful because by looking at the a, h and k terms, we can tell how the graph "changes" or transforms.</i>
Self- assessment of your personal understanding of this objective in your notes	<i>I feel OK with this objective. I can memorize the vertex forms of functions but I sometimes mix up the "a" and "h" term in my head.</i>

D. RUBRIC TO ASSESS NOTES QUALITY

Advanced	Proficient	Basic
<input type="checkbox"/> Includes proper heading and page set-up	<input type="checkbox"/> Includes proper heading and page set-up	<input type="checkbox"/> Includes proper heading and page set-up
<input type="checkbox"/> Presents formulas, rules, definitions and examples in a way that establish connections between them	<input type="checkbox"/> Presents formulas, rules, definitions and examples which are somewhat connected	<input type="checkbox"/> Presents formulas, rules, definitions and examples which are somewhat connected
<input type="checkbox"/> Examples are organized neatly, with a variety of different examples	<input type="checkbox"/> Examples are organized neatly	<input type="checkbox"/> Examples are organized neatly
<input type="checkbox"/> Contains diagrams, visuals, highlighting, side comments and other technical writing tools are used to elaborate on or connect ideas together	<input type="checkbox"/> Contains diagrams, visuals, highlighting, side comments and other technical writing tools to better communicate ideas	<input type="checkbox"/> Contains diagrams, visuals, highlighting, side comments and other technical writing tools to better communicate ideas
<input type="checkbox"/> Contains high-level questions for further research or consultation with the teacher	<input type="checkbox"/> Contains some questions for further research or consultation with the teacher	<input type="checkbox"/> Does not contain questions for further research or consultation with the teacher
<input type="checkbox"/> Contains a concise 3 sentence summary of the objective's main ideas	<input type="checkbox"/> Contains some 2 sentence summary of the objective's main ideas	<input type="checkbox"/> Does not contain a summary of the objective's main ideas
<input type="checkbox"/> Contains a thoughtful 2 sentence self- assessment of understanding of objective	<input type="checkbox"/> Contains some 1 sentence self- assessment of understanding of the objective	<input type="checkbox"/> Does not contain a self- assessment of understanding of the objective

E. EXAMPLES OF NOTES

I. IM1 Example: Domain & Range (video)

Name & Date
↓
Kavina Guerrero
7/7/17

Focus Area Title
↓
Domain & Range

Objective: Understand that a function has two sets (the domain & range) and each element of the domain is assigned exactly one element of the range

Source: Relations & Functions

Notes section
↓

Questions Section

What is a relation?
list of pairs

What is a function?
each member of the domain has only one element in the range.

Are all functions relations?
yes

Notes

Ex: Is the relation given by the set of ordered pairs shown below a function?
 $\{(-3, 2), (-2, 4), (0, 5), (-2, 6), (3, 8)\}$

* Note: Not all relations are functions.

Relation that's func	Relation that's not func
$\{(1, 2), (2, 2), (3, -7)\}$	$\{(1, 2), (2, -3), (1, 4)\}$

Summary
↓

S: We know not all relations are functions. A special type of relationship between the domain and range "create" a function. So each member of the domain has one partner in the range.

self assessment
SA: I understood this objective. I'm still confused about all functions are relations.

II. IM1 Example: Domain & Range (website)

Karina Guameros
7/1/19

Domain & Range

Objective: Understand that a function has two sets (the domain & range) and each element of the domain is assigned exactly one element of the range.

Source: Functions Versus Relations (Reading)

Questions

Notes

Def: A "relation" is a relationship btwn sets of info.

Def: Domain = the set of all starting points. (x-values)

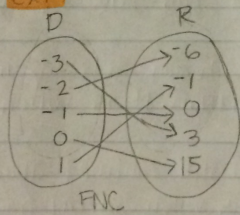
Def: Range = set of all 'ending' pts. (y-values)

Def: A fnc is a "well behaved" relation

This means that when given an 'x' we get only one 'y'.

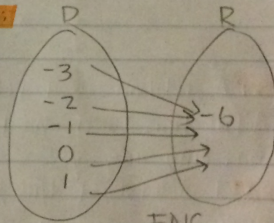
Are there any other cases that demonstrate if a relation is or isn't a fnc?

Ex:



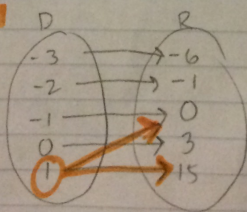
FNC

Ex:



FNC

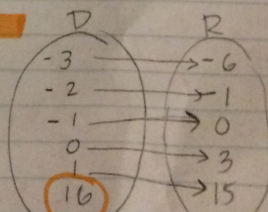
Ex:



NOT FNC

* The #1 has two different ys BUT it can only have 1.

Ex:



NOT FNC

* The #16 does not have a y AND it needs one.

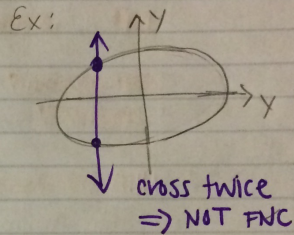
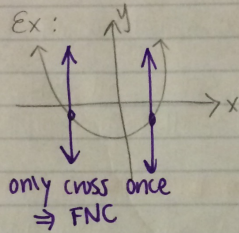
①

Questions

What is
the VLT?

Notes

MI: "Vertical Line Test" = given the graph of a relation, if you draw a vertical line that crosses the graph in more than one place, then the relation is not a fnc.



MI: Is it a fnc from an equation?

* Yes, if you can solve for y . (needs to be unique)

SA: A relation is a relationship between sets of information. A function is a well behaved relation. It is when each x has only one y .

SA: I understood this resource. I'm still confused about what it means for the y to be unique when solving from an equation.