

$$F'(x) = f(x)$$
$$d(F(x)) = f(x) dx$$
$$\int_a^b f(x) dx = F(b) - F(a)$$

Curating Calculus

Storie L. Atkins

Columbus High School, Columbus, GA

Why curate?

Selecting

Presenting

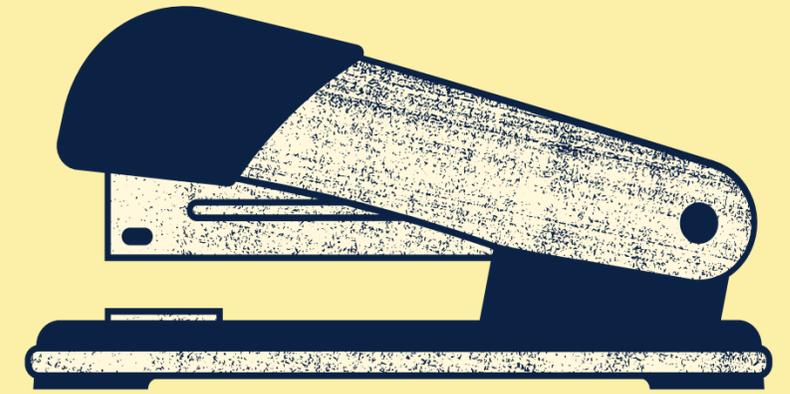
Organizing

**One who gathers
something, organizes it,
and makes it available
to the public.**



Curator Responsibilities

- ✓ Research, study, and know your craft
- ✓ Select, acquire, organize and store
- ✓ Decide on the breadth and depth of tasks
- ✓ Cater to your audience
- ✓ Exhibit and present



Research, Study and Know *your* Calculus

Limits

Continuity

IVT/EVT/MVT

AROC/IROC

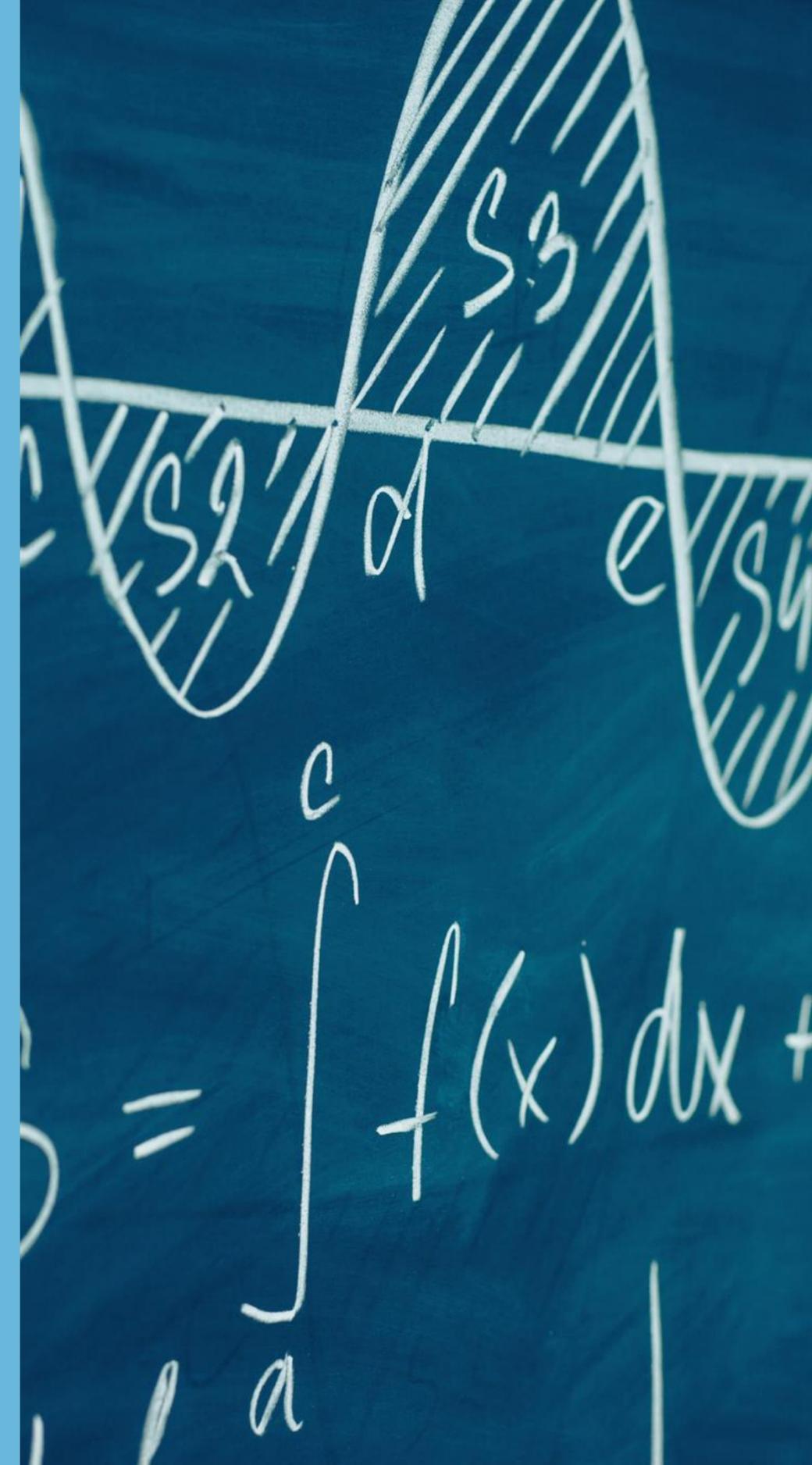
Derivative rules

Derivative applications

Integrals

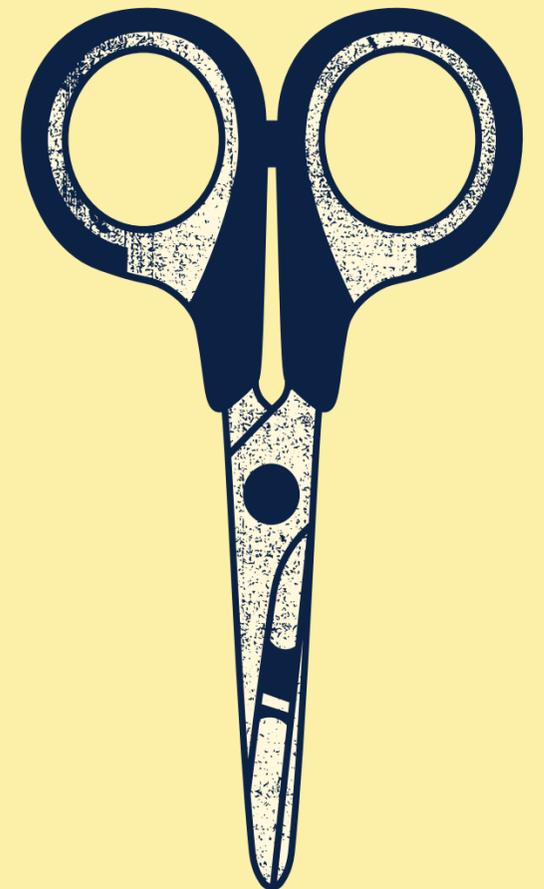
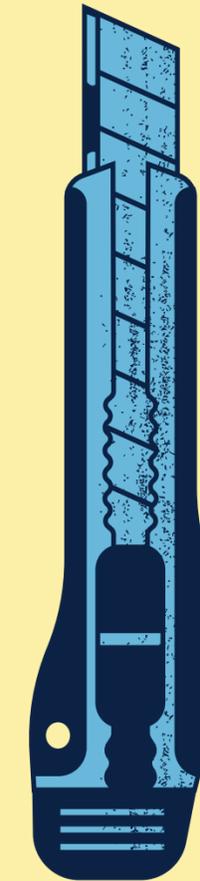
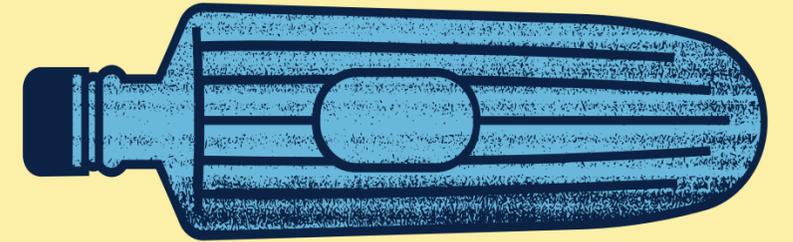
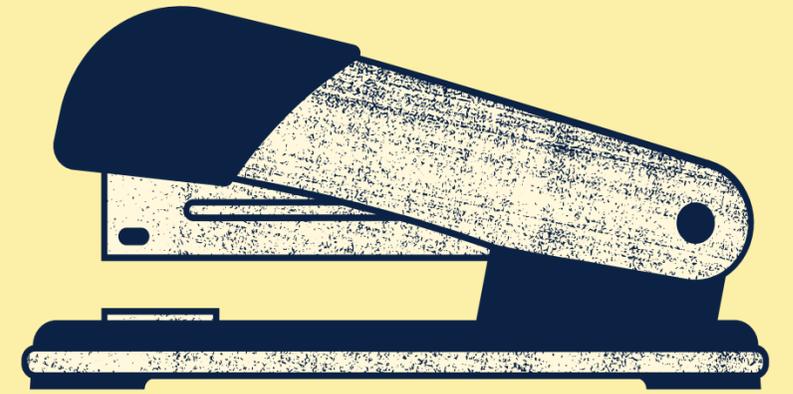
Integral applications

Differential equations



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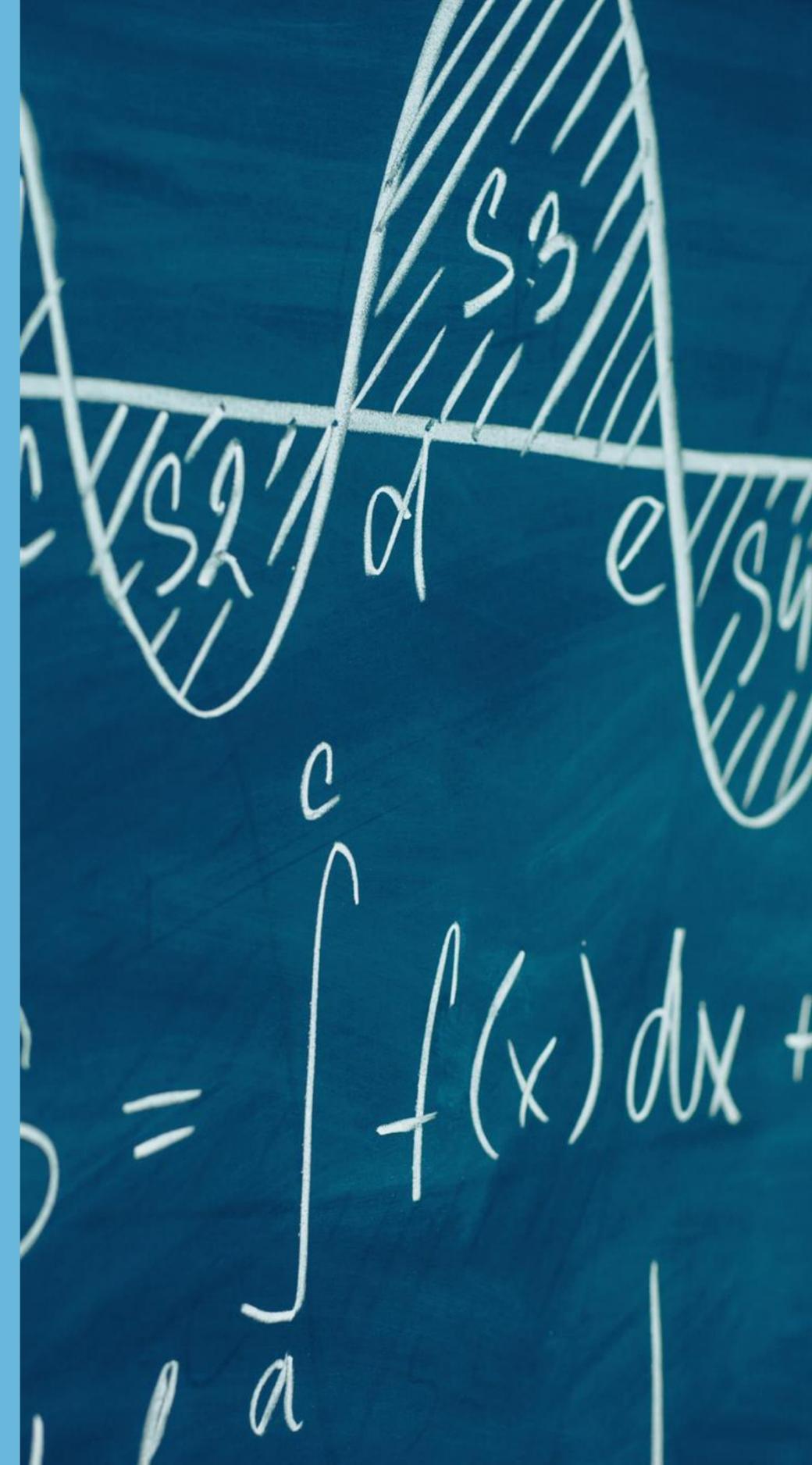
Select & Acquire

Select...AP Standards

- ✓ AP Classroom
 - Progress Checks
 - Daily Videos
 - Unit Guides
 - Topic Questions
 - Student Handouts
 - Released MC/FRQ

Acquire...As much as possible

- ✓ GaDOE Resources
- ✓ GA²PMT Resources
 - AP Calculus Resources
 - Reader Reports



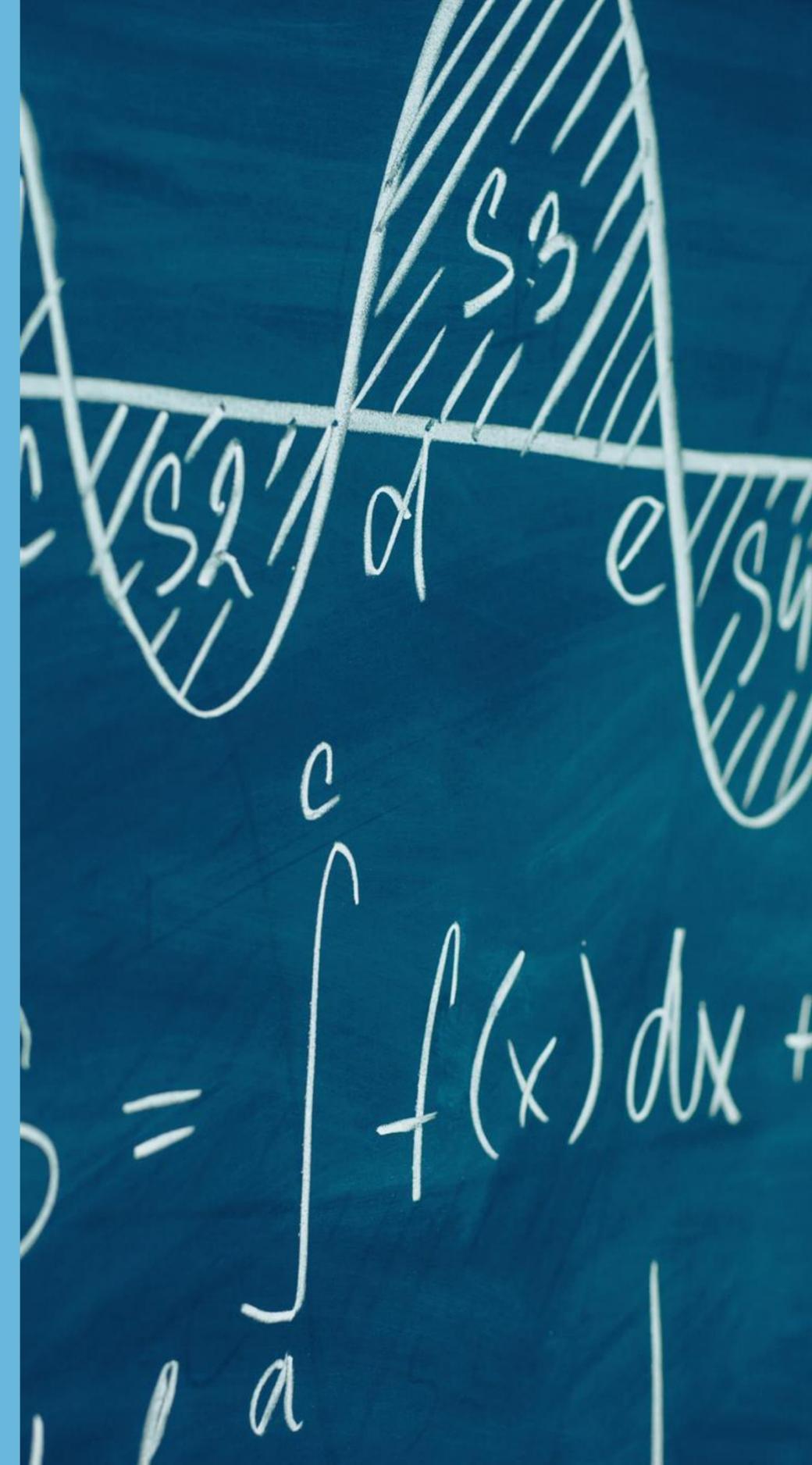
Organize & Store

Organize...

- ✓ Calendar
- ✓ Units
- ✓ Notes/Learning Activities
- ✓ Assessments

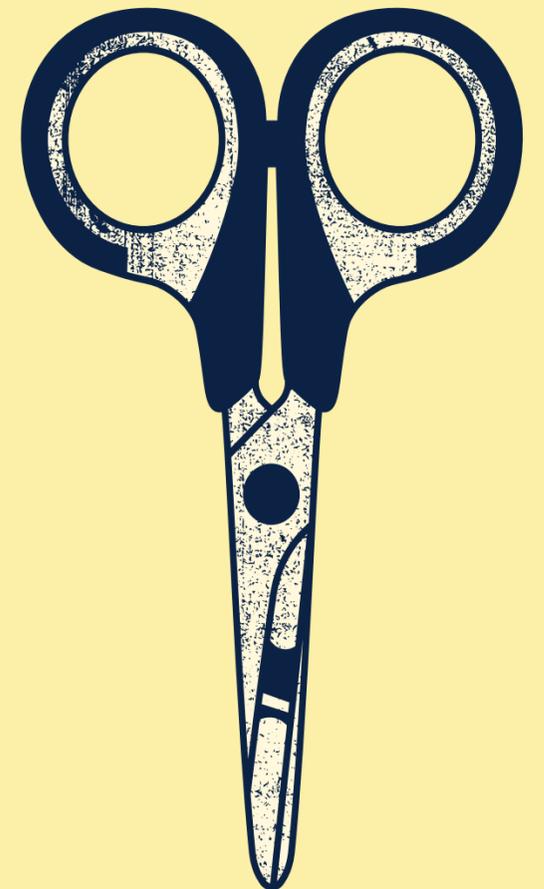
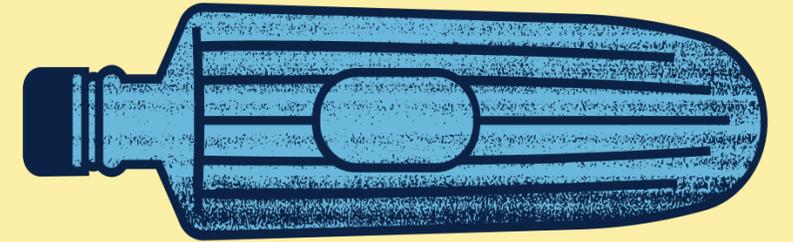
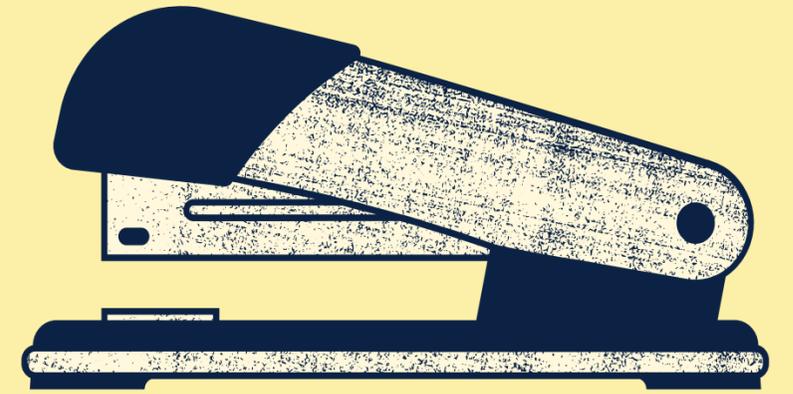
Store...

- ✓ Digital vs Physical storage



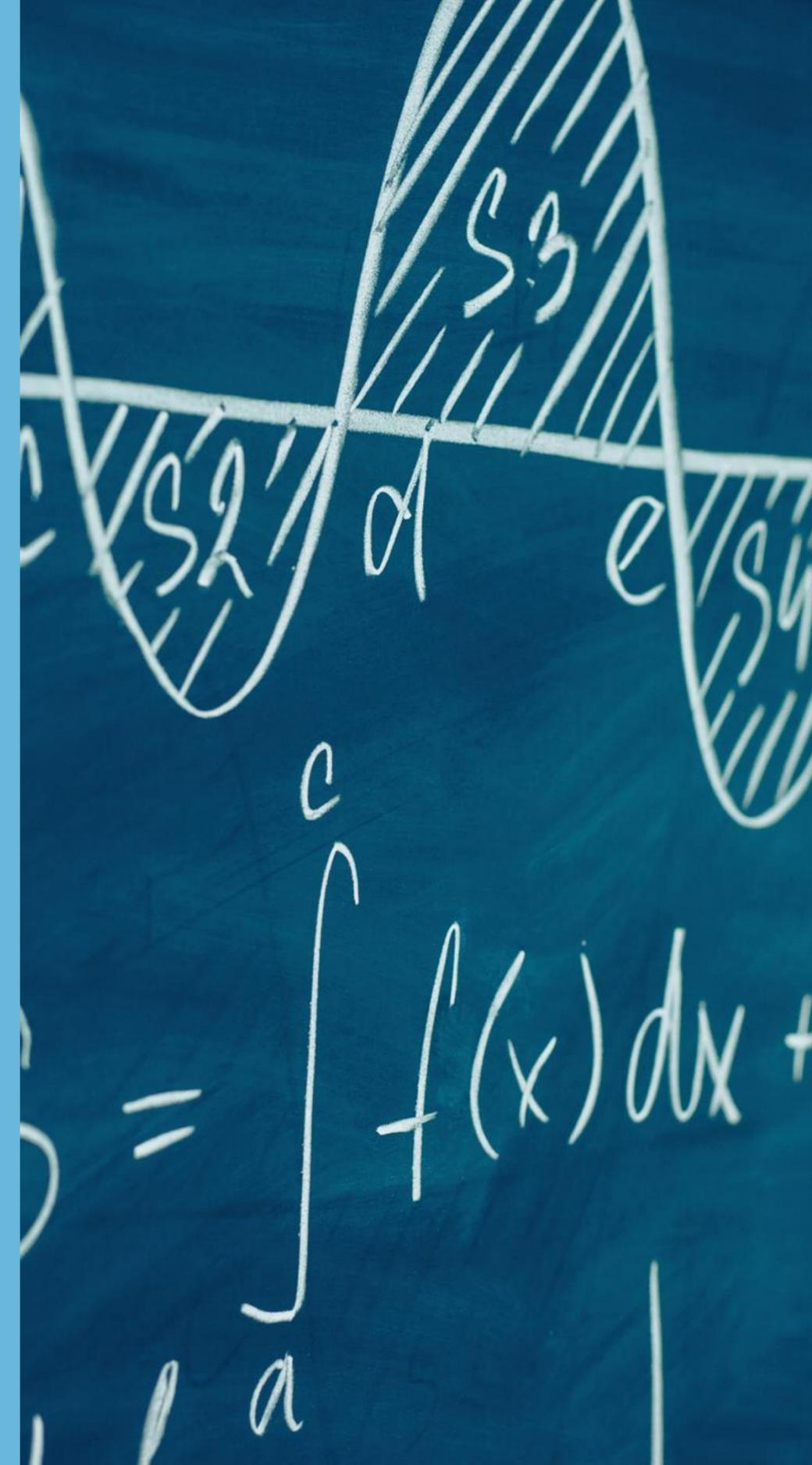
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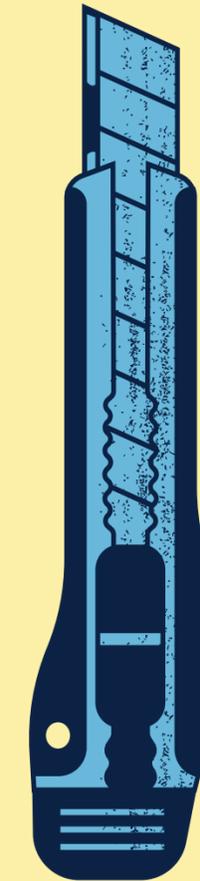
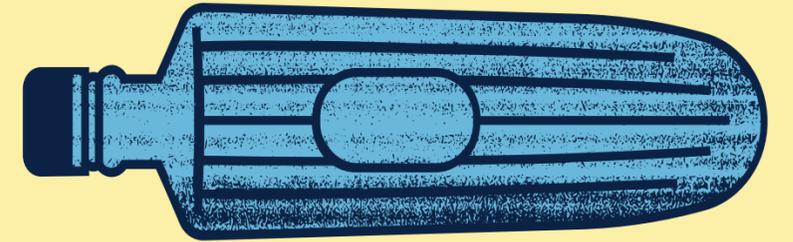
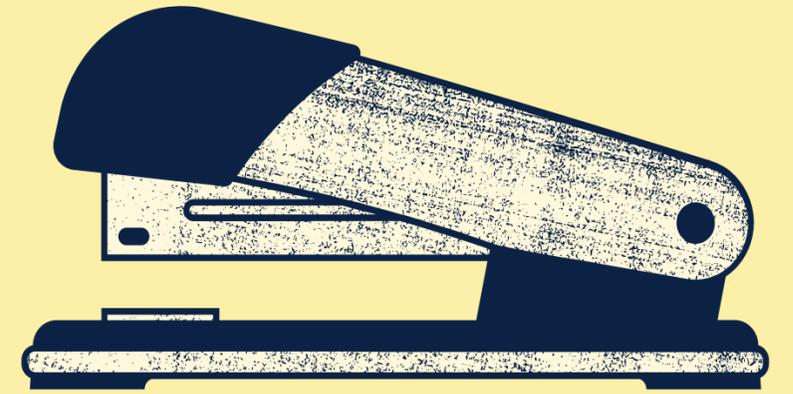
Breadth and Depth

- ✓ Focus on skills
- ✓ Focus on AP assessments
- ✓ Focus on learning tasks
- ✓ Focus on projects



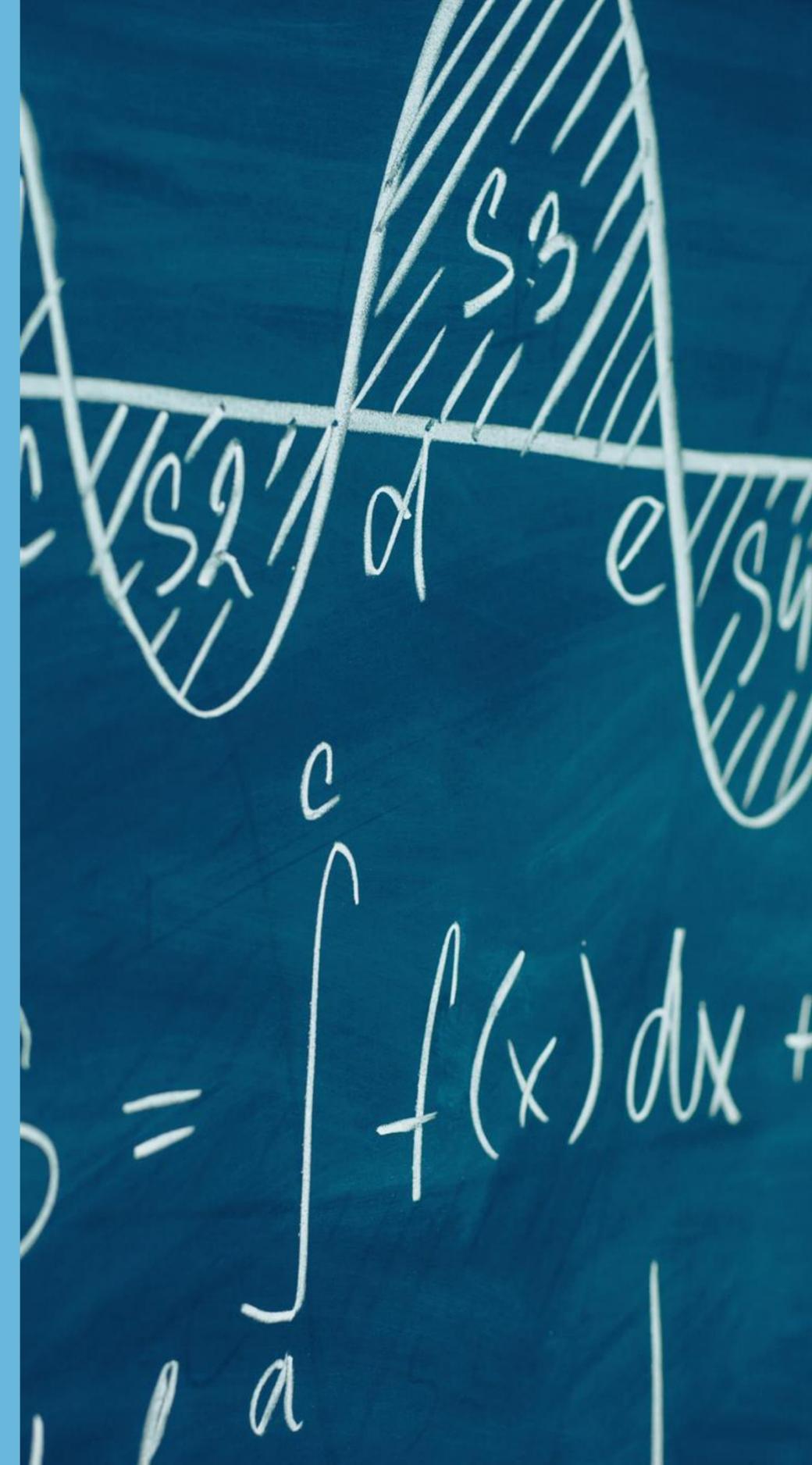
Curator Responsibilities

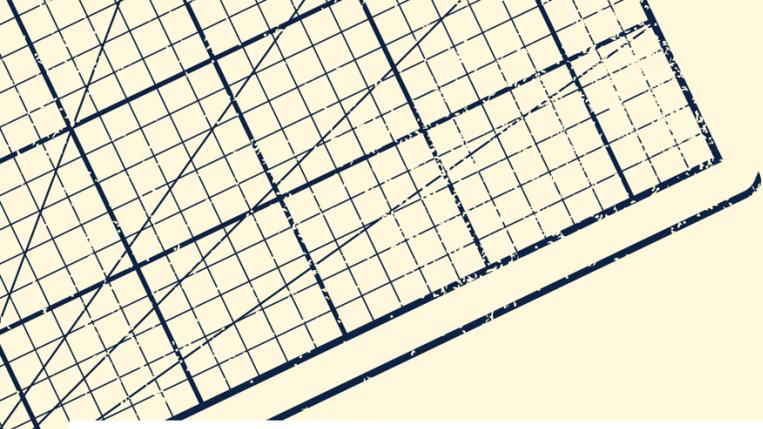
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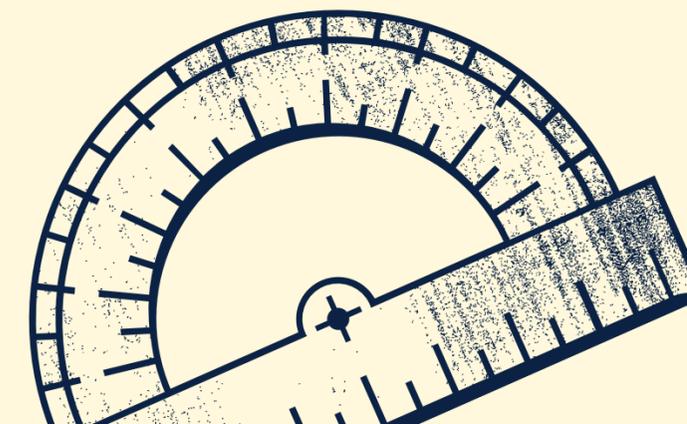
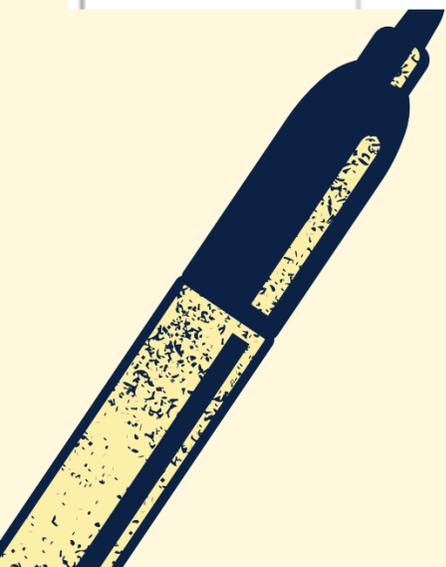
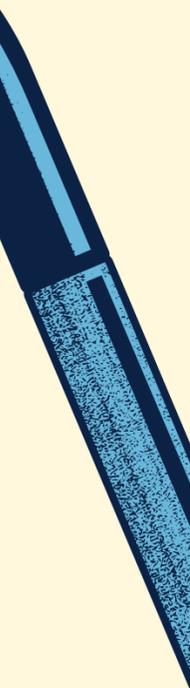
Cater to your students

- ✓ Stress what students **REALLY** need to know about the exam
 - NO penalty for guessing on MC
 - NO need to simplify on FRQ
 - Graders will “read with” them on FRQ
 - Slightly more than half gets it done



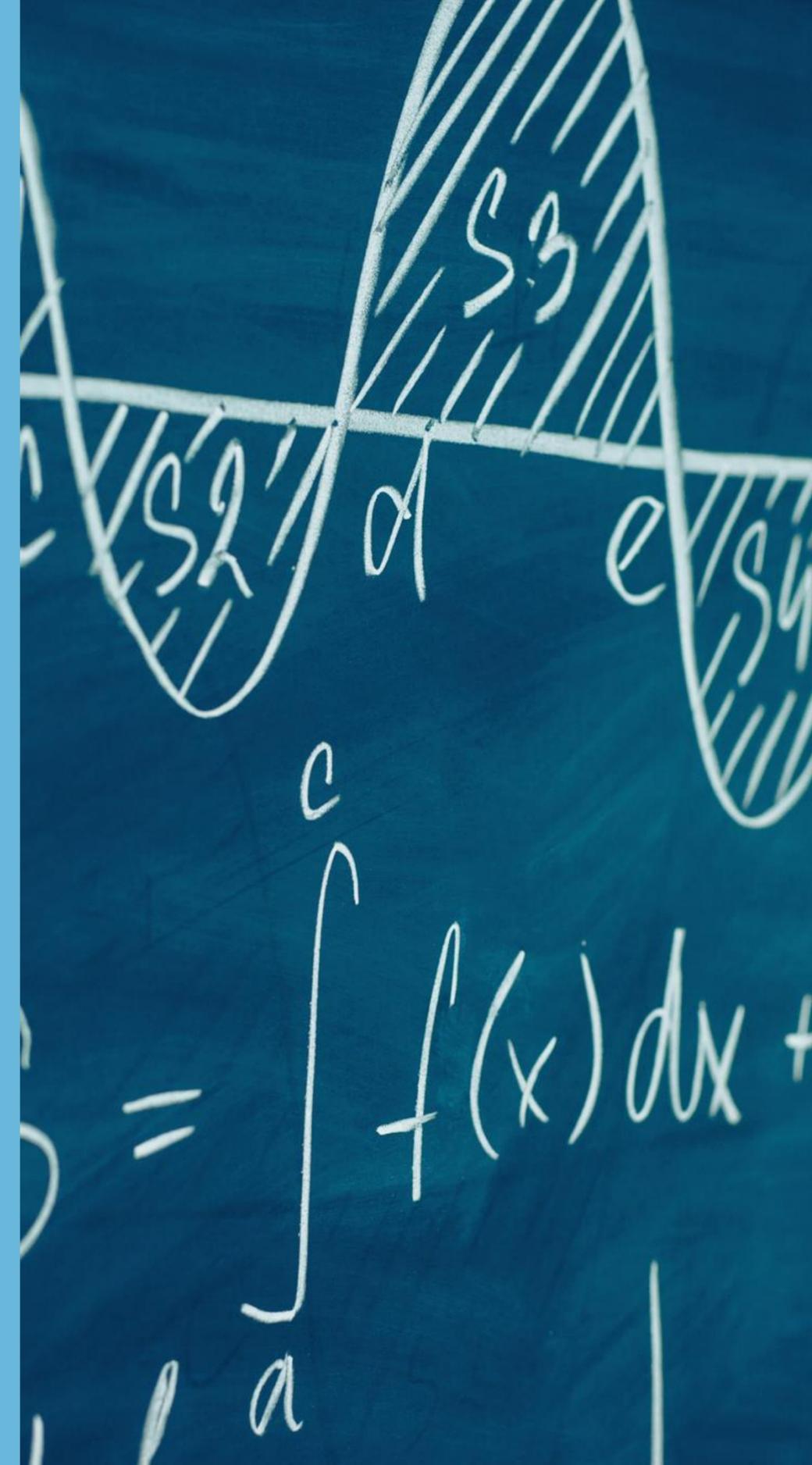


BC	5		4		3		2		1	
1997	66	108	54	65	36	53	29	35	0	28
1998	65	108	54	64	39	53	30	38	0	29
2003	64	108	53	63	36	52	26	35	0	25
2008	66	108	55	65	39	54	31	38	0	30
2012	68	108	56	67	42	55	35	41	0	34
2013	66	108	57	65	44	56	39	43	0	38
2014	62	108	52	61	40	51	33	39	0	32
2015	63	108	53	62	42	52	36	41	0	35
2017	65	108	54	64	39	53	24	38	0	23
	65	108	54.22222	64	39.66667	53.22222	31.44444	38.66667	0	30.44444



Cater to your students

- ✓ **What students REALLY need to know about the exam**
 - NO penalty for guessing on MC
 - NO need to simplify on FRQ
 - Graders will “read with” them on FRQ
 - Slightly more than half gets it done
- ✓ **How much students REALLY need to demonstrate on the exam**
 - “Write 3 and let it be!” – always give 3 decimal places
 - Numeric or algebraic simplification may be needed on MC, but not FRQ
 - Efficient solutions, free of non-specific words like “it”



Curator Responsibilities

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- ✓ ~~Select, acquire, organize and store~~
- ✓ ~~Decide on the breadth and depth of tasks~~
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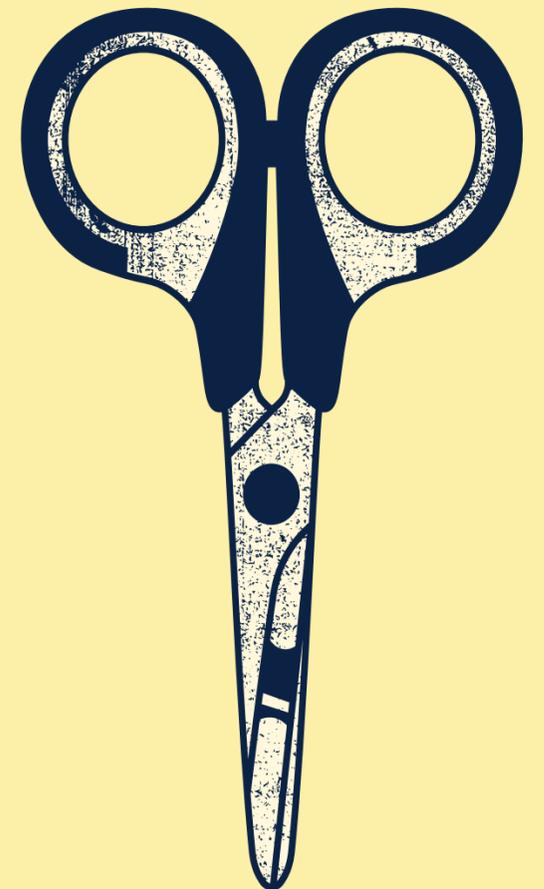
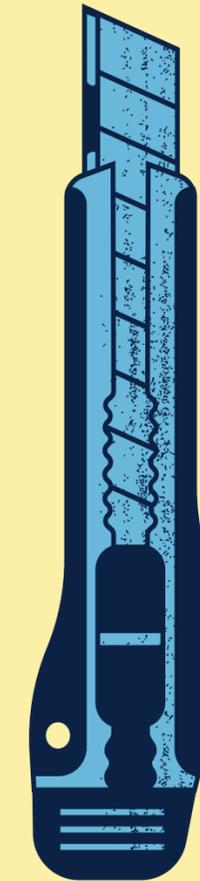
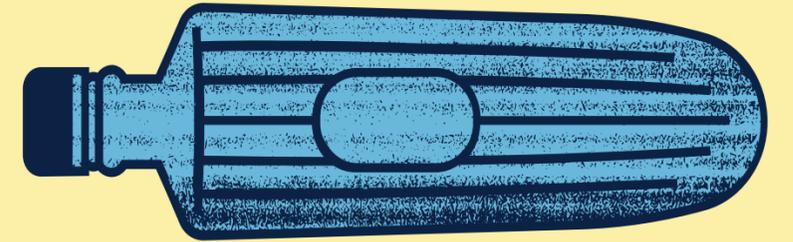
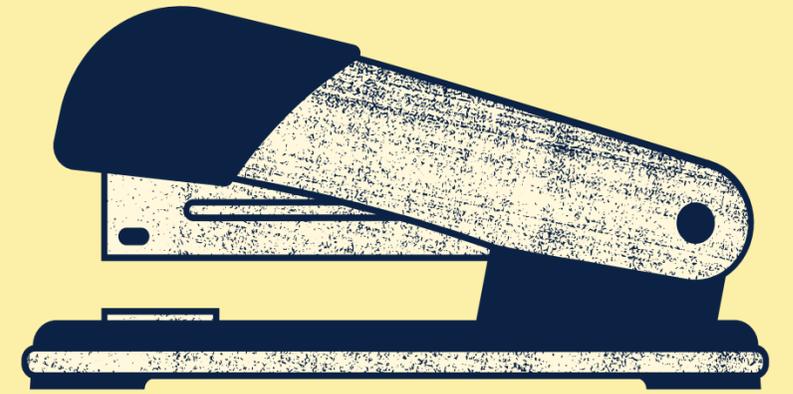
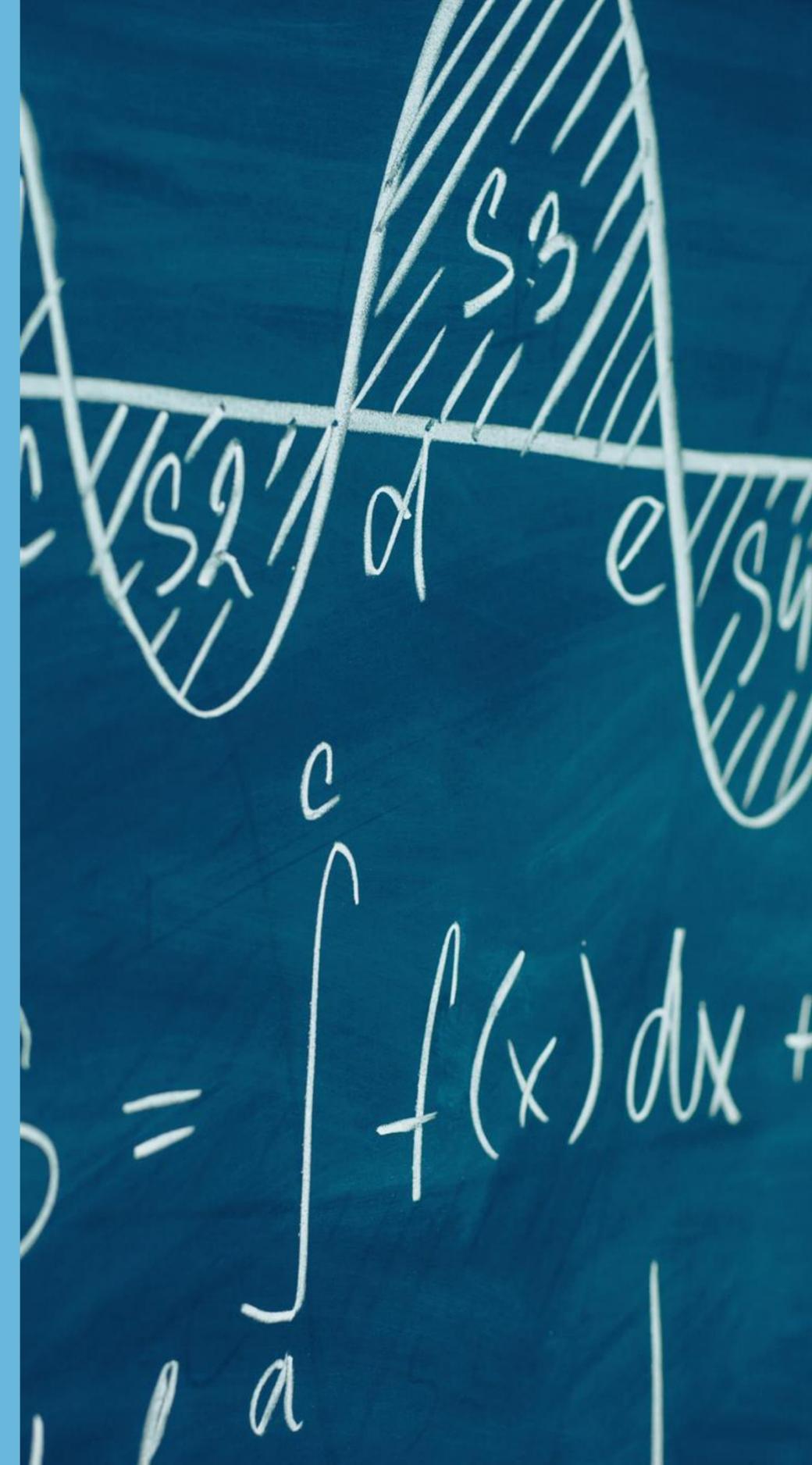


Exhibit and Present

- ✓ Find ways to exhibit students' performance throughout the year
- ✓ Learning calculus should be presented as an investment in each student's future





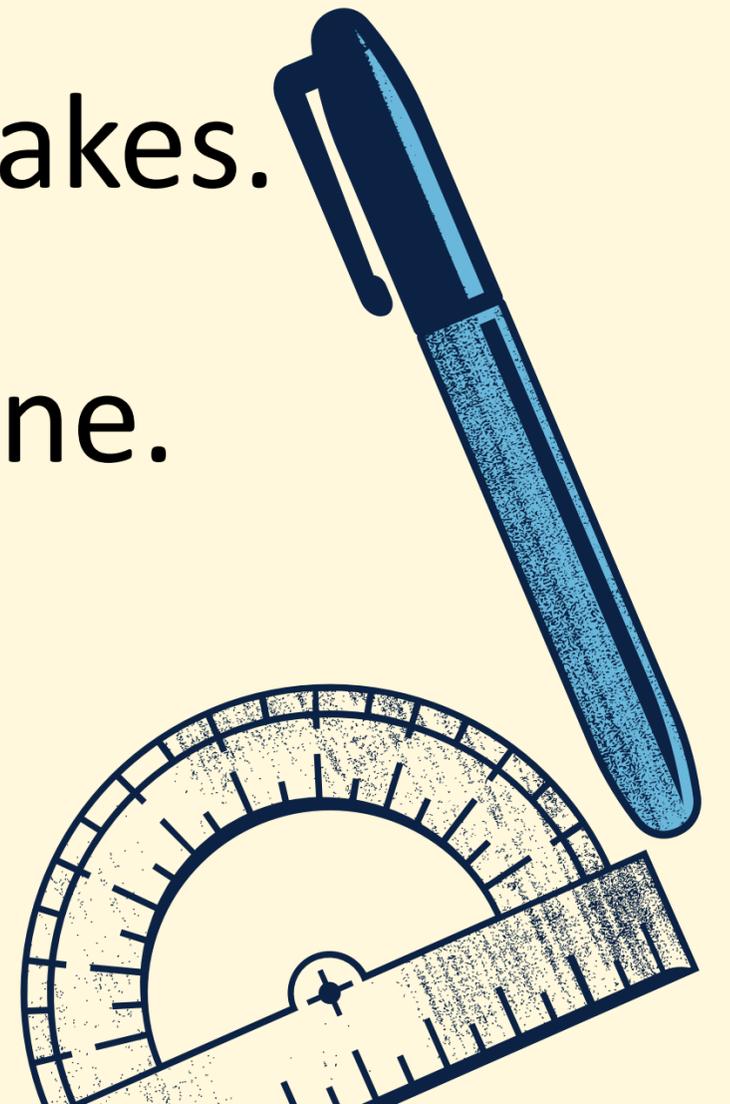
What makes a good curator?



Be bold, charismatic, and fearless.

Be willing to take risks and make mistakes.

Good curators don't try to go it alone.



Link to my AP Share File and Toolkit



Storie L. Atkins

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