### NYSNext Generation Mathematics Learning Standards

NYSED AND S'CDN MATHEMATICS TEAM NO VEMBER 30, 2017

_				
	(		) (	1.J

The Introduction: Why Start Here?



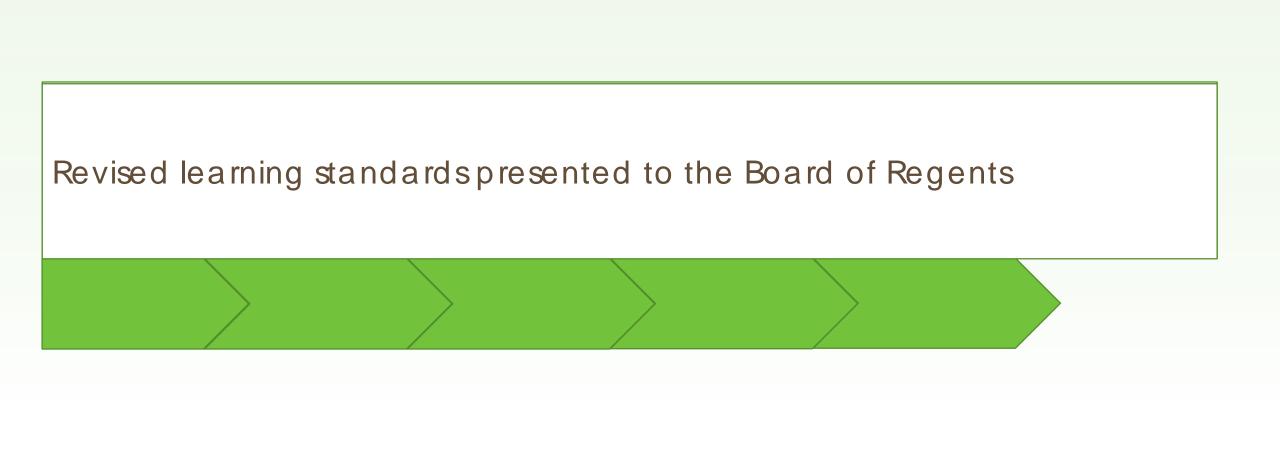
In 2015, New York State (NYS) began a process of review and revision of its current mathematics standards adopted in January of 2011. Through numerous phases of public comment, virtual and face-to-face meetings with committees consisting of NYS educators (Special Education, Bilingual Education and English as a New Language teachers), parents, curriculum specialists, school administrators, college professors, and experts in cognitive research, the New York State Next Generation Mathematics Learning Standards (2017) were developed.

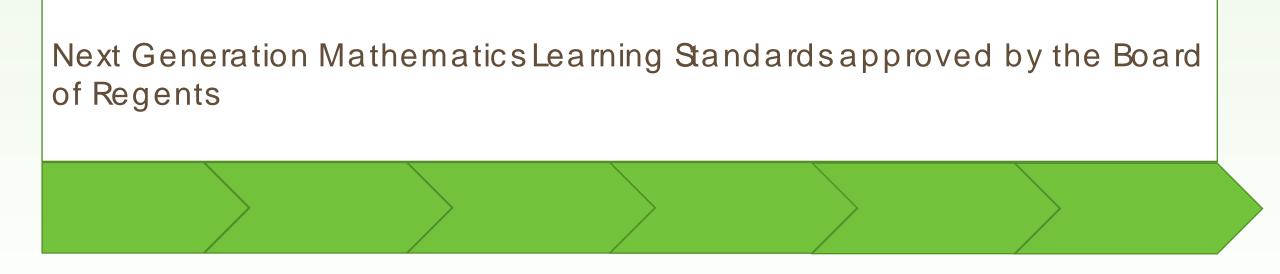
NYSED conducted a survey (AIMHighNY) of , and other about the current standards. More than 10,500 people responded to the survey and provided over 750,000 pieces of



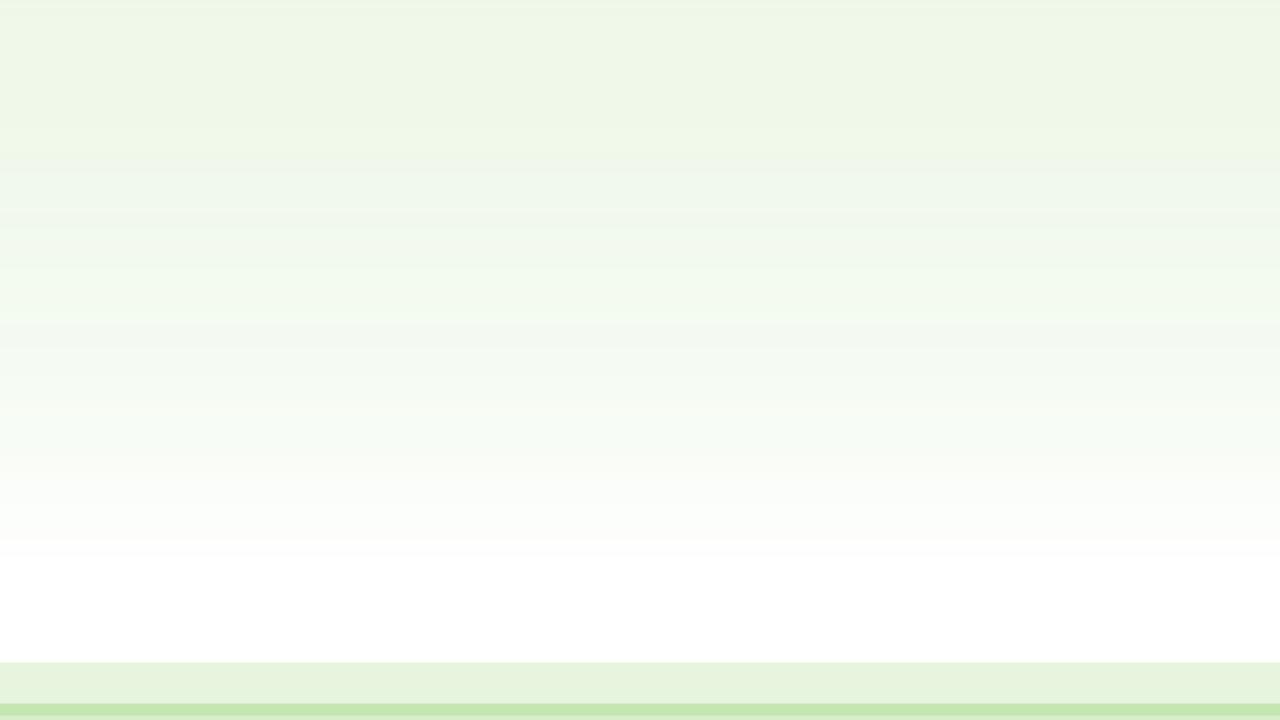
NYSED released the new draft learning standards for public comment and received more than 4,100 comments

The Mathematics Content Advisory Panel and other committees reviewed every learning standard, making any necessary modifications based on professional expertise as well as input gathered from public comment and child development experts





nėy tokašae nežražitelajo mvi	Bitemane neadhanasancais c	215 年	u f		The second secon
			<u>-</u>	JOCLEJON _	



How do these four components work together to support student learning?





#### NYS Next Generation Mathematics

Learning Standards (2017)

Changing expectations for mathematics achievement

Increasingly Diverse Learner Populations

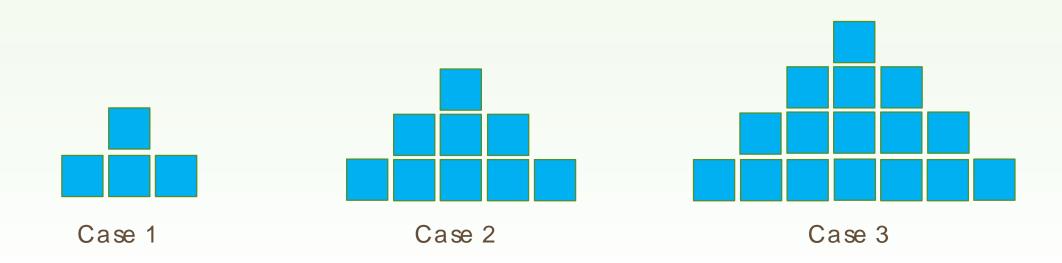
Students with Disabilities and the Standards

NYS Next Generation Mathematics Learning Standards (2017)

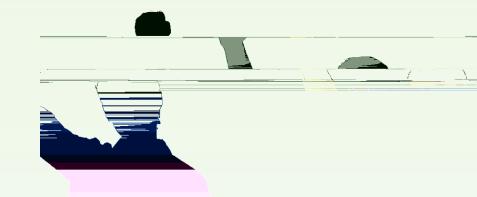
- Each team of 4 will be provided a set of task cards to read
- While reading your assigned task card, answer the following:



#### Describe how the shapes are growing.



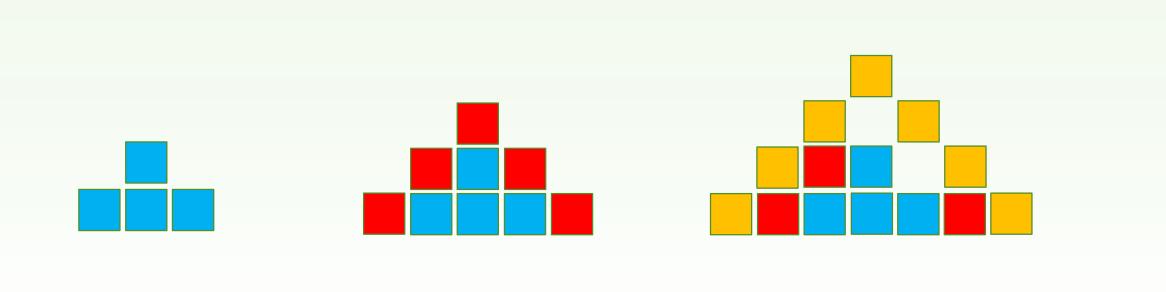
- Pass your paper clockwise
- Read your teammates description
- Write at least 1 comment reflecting on their description
- Repeat process until you receive your paper back

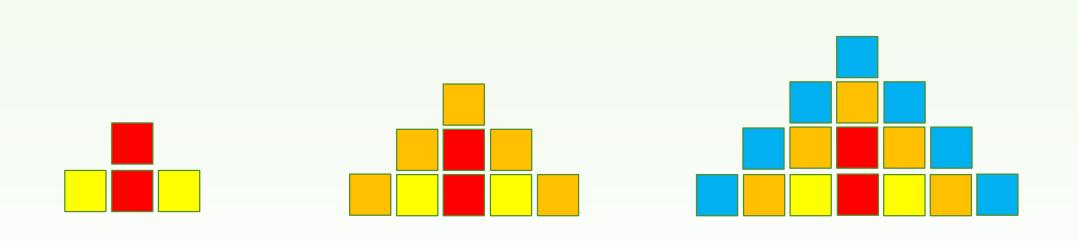


Which method do you identify with?

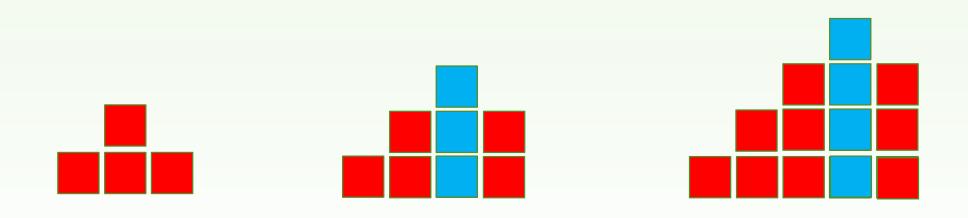
If you hear one of yours, stand up

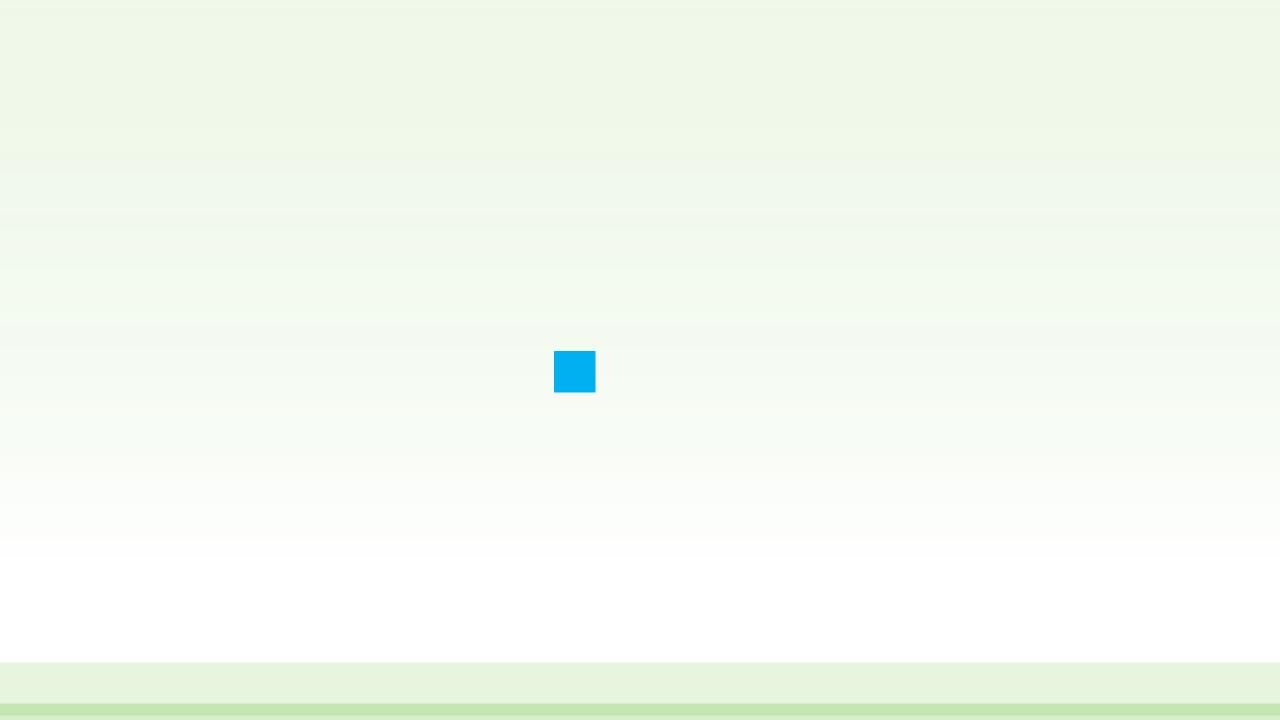






#### Red Sea Method





 What would the 6<sup>th</sup> case look like? How many \_\_\_\_ blocks would it have? How do you know?

• How many blocks would there be in the nth case? How do you know?

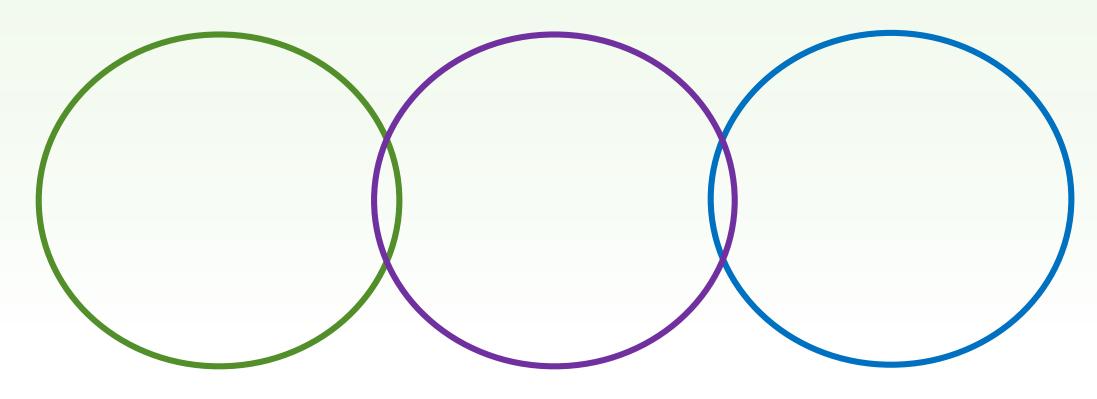
# How Do The NYS Next Generation Mathematics Learning Standards Support These Changing Expectations?

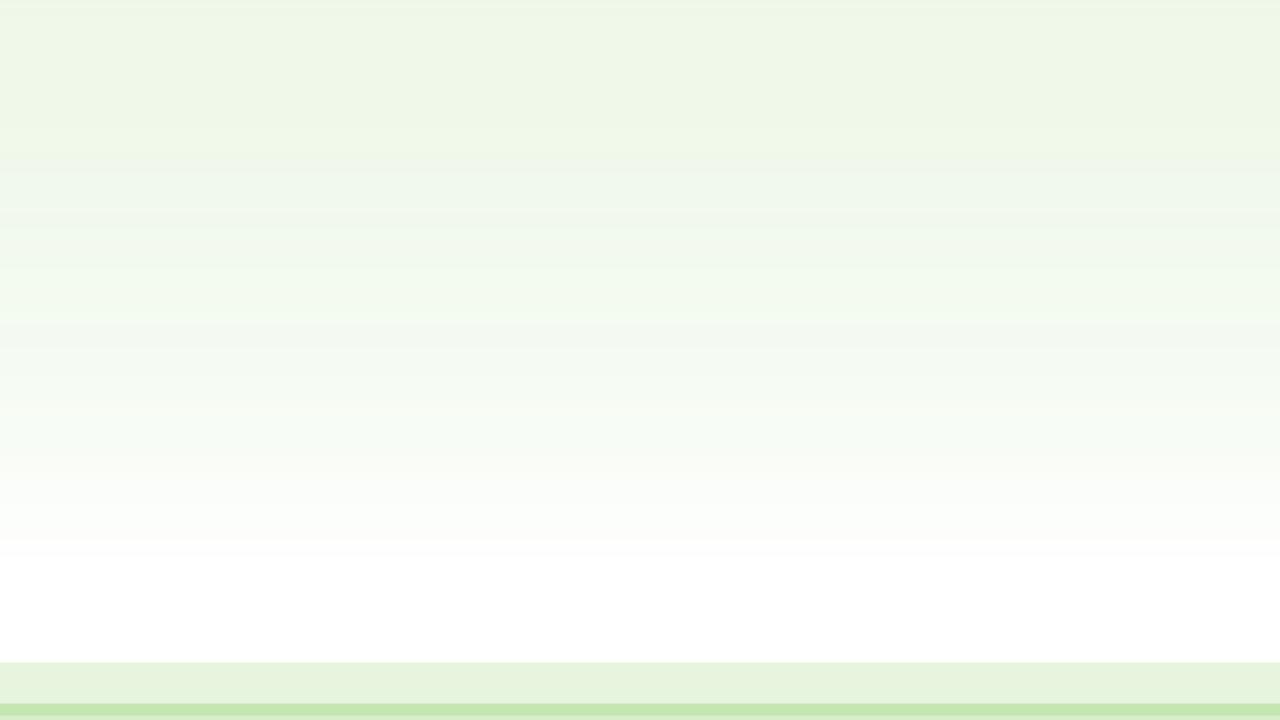
Connecting Content to Practice

Standards for Mathematical Content

## How Do The NYS Next Generation Mathematics Learning Standards Support These Changing Expectations?

Connecting Content to Practice

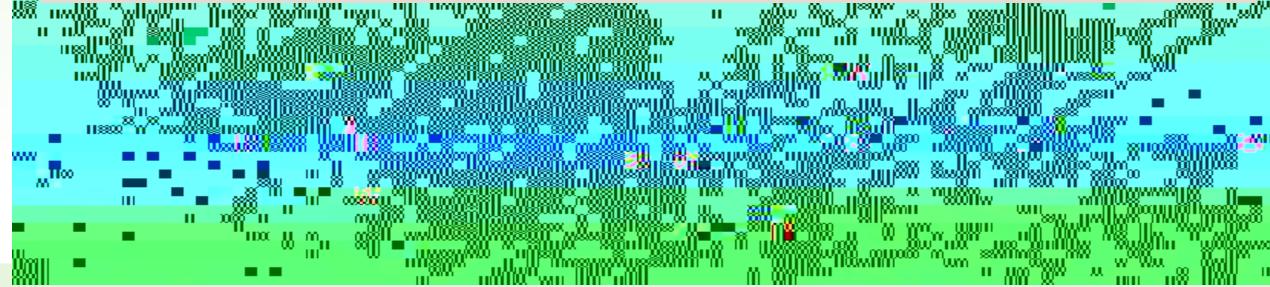




- Each table has been assigned a number
- At your table fill in the following sentence frame:

Sounded like \_\_\_\_\_and Sounded like \_\_\_\_and during this activity.

Work as an impactful and motivated data scientist developing technical **solutions to complex problems**. Analyze data to identify trends and support the development of mission-related analyses, using techniques such as econometrics regression analysis, cluster analysis, Bayesian analysis, discriminant analysis, sentiment analysis, support vector machines, survival analysis, and other modes of machine learning. Contribute to the development of new concepts and experiments, translate these ideas into executable action plans, and communicate these plans to a diverse client base. Create mathematical models and programs used to test solutions to complex systems. Work within cross-functional teams to engage the client, comprehend the client's problems, develop strategic analytical products, support requirements analysis, including process and systems analyses, support the development of business and system architectures, and define actionable system requirements.



## What do the Standards for Mathematical Practice Look and Sound Like in Kindergarten?



### NYSED Office of Curriculum and Instruction 518-474-5922

John Svendsen (NYSED Math Associate) <u>John.Svendsen@nysed.gov</u>

Sue Brockley (NYSED Math Associate) Susan. Bro

Susan.Brockley@nysed.gov

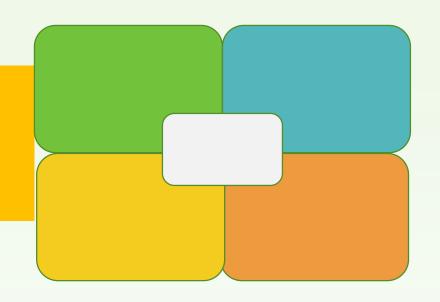
Boards of Cooperative Educational Services (BOCES)

Staff and Curriculum Development Network (SCDN)

NYSCDN.COM

Whose mission is to strengthen the capacity of school districts to promote successful attainment of the New York State Standards by all students.

The Math and ELA Leadership Teams plan the logistics for the standards review process including developing materials and providing guidance for the Standards Review Committees.



Both Math and ELA Committees are split into grade band subcommittees; and into course subcommittees for high school math.

: Content Advisory Member

: P-12, ENL, Special

Education

: Building level, District

level, Instructional Coaches

: SUNY, CUNY,

Community Colleges

: Urban, Suburban, rural, ENL,

SWD