

# GEOMETRY TASC PREPARATION

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RAEN MARCH 19-20 2018

SYRACUSE NEW YORK

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# TASC switched from DEF to GHI exams in January 2018

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Subdomain/Core Idea remain the same as do  
the percentages of each subdomain on the exam

Domain/ Reporting Category	Subdomain/Core Idea	Subdomain %	Domain %
Algebra	Arithmetic with Polynomials and Rational Expressions	6%	26%
	Reasoning with Equations and Inequalities	8%	
	Creating Equations	6%	
	Seeing Structure in Expressions	6%	
Geometry	Geometric Measurement with Dimension	6%	23%
	Modeling with Geometry	7%	
	Congruence	5%	
	Similarity, Right Triangles, and Trigonometry	5%	
Functions	Interpreting Functions	10%	26%
	Linear, Quadratic, and Exponential Models	8%	
	Building Functions	8%	
Number and Quantity	Quantities	10%	13%
	The Real Number System	3%	
Statistics and Probability	Making Inferences and Justifying Conclusions	3%	12%
	Interpreting Categorical and Quantitative Data	6%	
	Conditional Probability and Rules of Probability	3%	

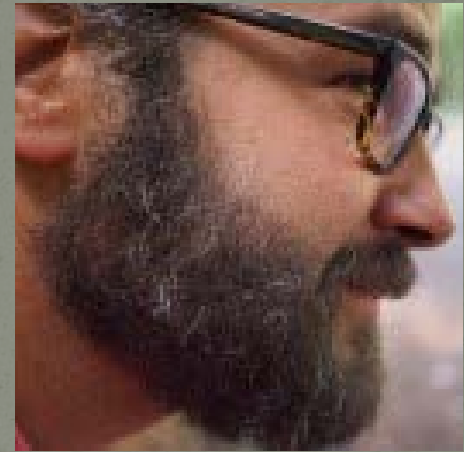
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# Analysis of TASC Readiness Assessment

- Thank you Mark Trushkowski

• Functions	26%	33%
• Algebra	26%	26%
• Geometry	23%	13%



- Don't wait to squeeze in high emphasis. Try to teach fundamentals and high emphasis together

# Math Questions: 52% no Calculations

What do no calculation ? look like?

- Which statement is true about...?
- What is the correct interpretation of...?
- Which equation represents...?
- Which graph represents...?
- Which system of equations can be used to...?

# High Emphasis Geometry Topics:

- Use volume formulas
- Apply concepts of density based on area and volume

# Medium Emphasis Topics

- Know Precise Definitions:  
angle, circle, perpendicular and parallel lines  
and line segments
- Use Congruity and Similarity criteria for triangles to solve problems and to prove relationships in geometric figures
- Pythagorean Theorem

# collectedny.org

- [Geometry Content Emphases](#)
- [Examinee Guide TASC Math](#)



# How can we maximize our teaching?

- Integration: Combine domains and subjects, try to appeal to students' life experience
- Repetition: Repeat important topics over days or weeks
- Manipulation: Appeal to as many senses as possible
- Variation: Teach multiple strategies for problem solving

# Hands-On Geometry

CUNYHSEF Math Framework pgs 205-220

1. How many rectangles containing 24 squares can you make on graph paper?
2. What do you notice about the perimeter and area of these 4 rectangles?
3. Make a rectangle to represent  $9 \times 4$
4. Make a rectangle to represent  $12 \times 6$
5. What happens when graph is too small?  $45 \times 26$

# Applying area model to Polynomials

- 1. Draw an abstract area model of  $6(10+2)$
- 2. Draw an area model of  $6(x+2)$
- 3. Draw an area model of 5 and  $(2x+4)$
- 4. Draw an area model of  $(x+5)$  and  $(x+4)$

# Happy late $\Pi$ day!

- Review vocabulary: radius, ulna, diameter  
and circumference

Measure the diameter using a piece of string on various sized circles. See how many of those diameter strings it takes to get around the circle. No matter how big or small the circle is it will take about 3 diameters to get around a circle. That is how many diameters = circumference.

# Using Origami for volume

- Origami paper starts off as a square – 2 dimensional
- We can fold the paper into a rectangular prism – 3 dimensional

# Gold Rush

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Another project that relates perimeter to area:

[Mining plot sizes](#)

# Resources

- [CUNY TASC](#)
- [Problem attic](#)
- [ProCon.org](#)