

**Common Core State Standards
In Mathematics
&
OUSD Mathematics Course Sequence**

**Skyline High School PTSA
Tuesday, March 18, 2014
7:00 PM**

Welcome and Introductions

- * Welcome to Skyline, Principal Trinh

Meeting Outcomes:

To build a common understanding of the Common Core State Standards, with an emphasis on Mathematics.

To present how Oakland Unified School District is aligning the mathematics program to the new standards and preparing students for success in rigorous college mathematics.

- * Opening and Introductions, Phil Tucher, Manager of Mathematics

Number Talk

$$18 \times 12$$

3 R's + 4 C's = 7 Survival Skills

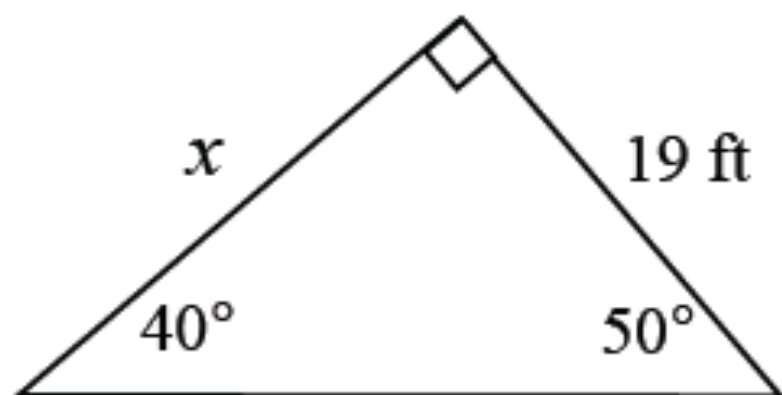
3 Rs CCSS focus on Reading, Writing, Arithmetic

4 Cs* Critical thinking, Creativity,
Communication, Collaboration

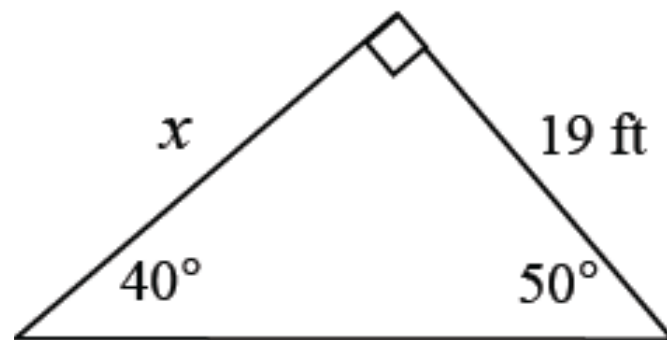
7 Survival Skills**

1. Critical thinking/problem-solving,
2. Networks and leading by influence
3. Agility and adaptability
4. Initiative and entrepreneurialism
5. Effective oral and written language
6. Assessing and analyzing information
7. Curiosity and imagination

Solve for x in the triangle below.



Who's right – Chris,
Brenda, or Pamela?
Explain how you know.



Chris thinks you should set up the equation like this:

$$\frac{x}{19} = 1.1928$$

Brenda thinks the equation should look like this:

$$\frac{19}{x} = 0.8391$$

Pamela thinks she is right with this equation:

$$\frac{19}{x} = 1.1928$$

Who is correct? Who is incorrect? Explain how you know. Think by yourself for five minutes, then discuss with your team and be prepared to share out what your team discussed.

Major Shifts in Math

- Emphasis on academic discussion to deepen math
- Answers are part of the process, but not the primary focus
- Productive struggle at the forefront of learning
- Non-routine problem-solving, performance tasks
- Performance Tasks - part of midyear and end of year benchmark assessment
- Smarter Balanced Assessment - Spring 2014

Common Core State Standards: Math Course Implications

1. High School Courses – choosing “traditional” vs. “integrated” model
2. *Algebra* is now generally a high school course
3. *Math 8* course includes topics formerly taught in *Algebra* and *Geometry*
4. All course levels include *topics in statistics* not previously included in the typical K-12 sequence
5. Options for “support” and “challenge” at middle school and high school

What school mathematics experiences are demanded of a 21st century high school graduate?

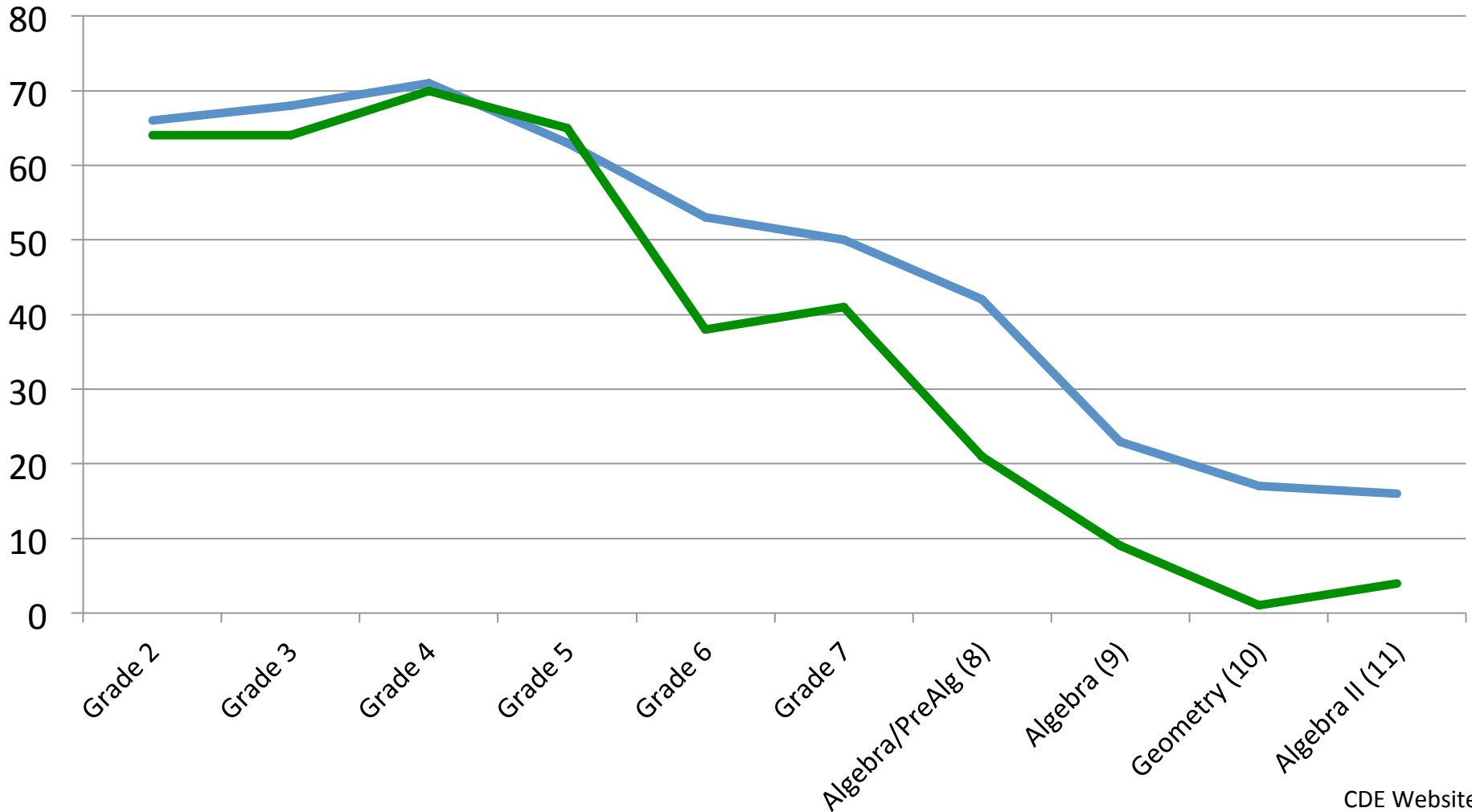
Mathematics Pathways to Success

- * Historical data
- * Important options for your child:
 - Sequences A, B, & C

Math Proficiency Rates (CST, 2012) for a typical course sequence

California (blue)

OUSD (green)



Were we over accelerating our highest performers?

7th grade Alg

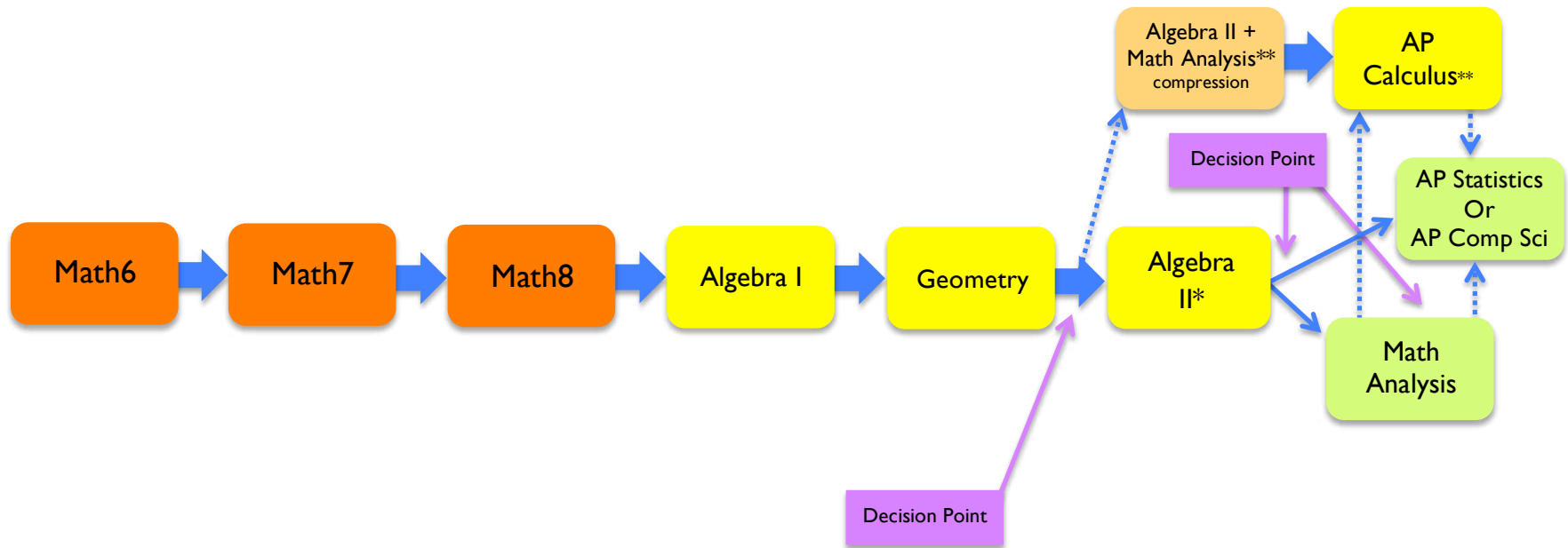
8th grade Geo

9th grade Alg2

- ✦ About half of Advanced-scoring 6th Graders took 7th Grade Algebra (compare to 1 in 13)
- ✦ 29% of 7th Grade Algebra students scored Advanced (compare to 98%)
- ✦ Performance tasks: 51% of Grade 8 Geometry students were not proficient on *MARS Exam* (statewide, OUSD not known)
- ✦ 36% of Grade 9 Algebra 2 students scored *Below Basic or Far Below Basic* (compare 100% *Proficient*)

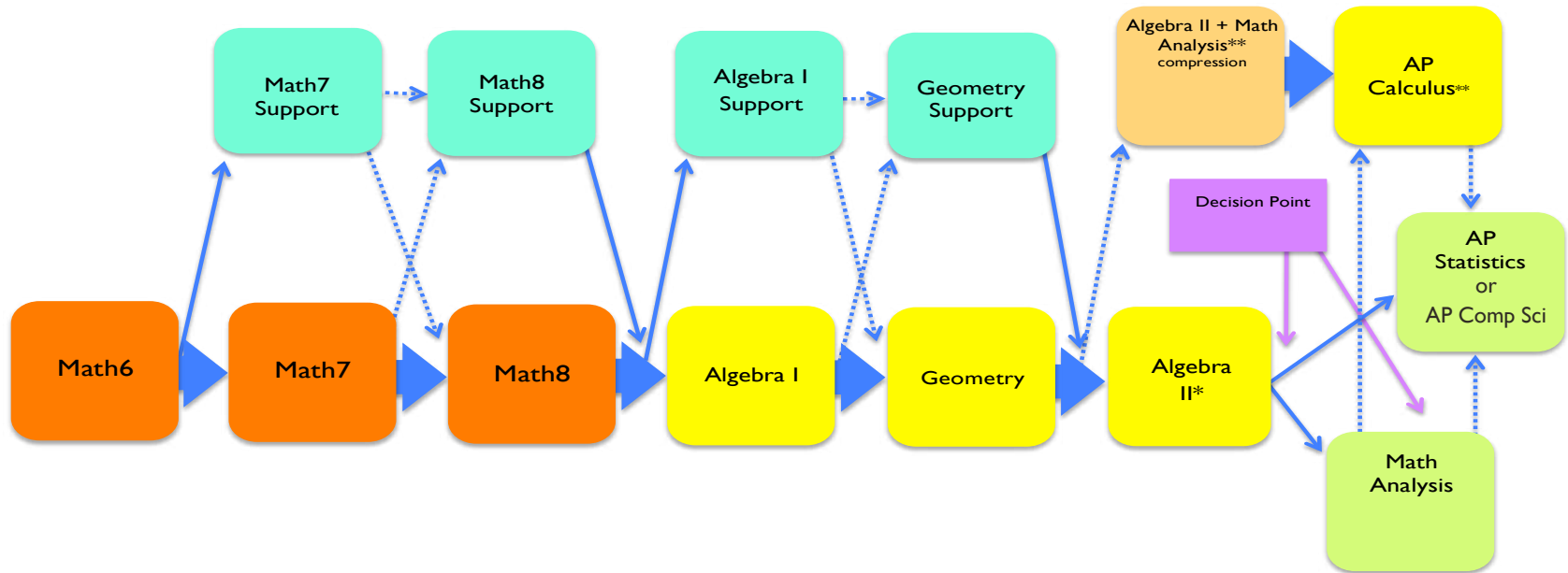
Sequence A: *Recommended*

OSD Math Course Sequence



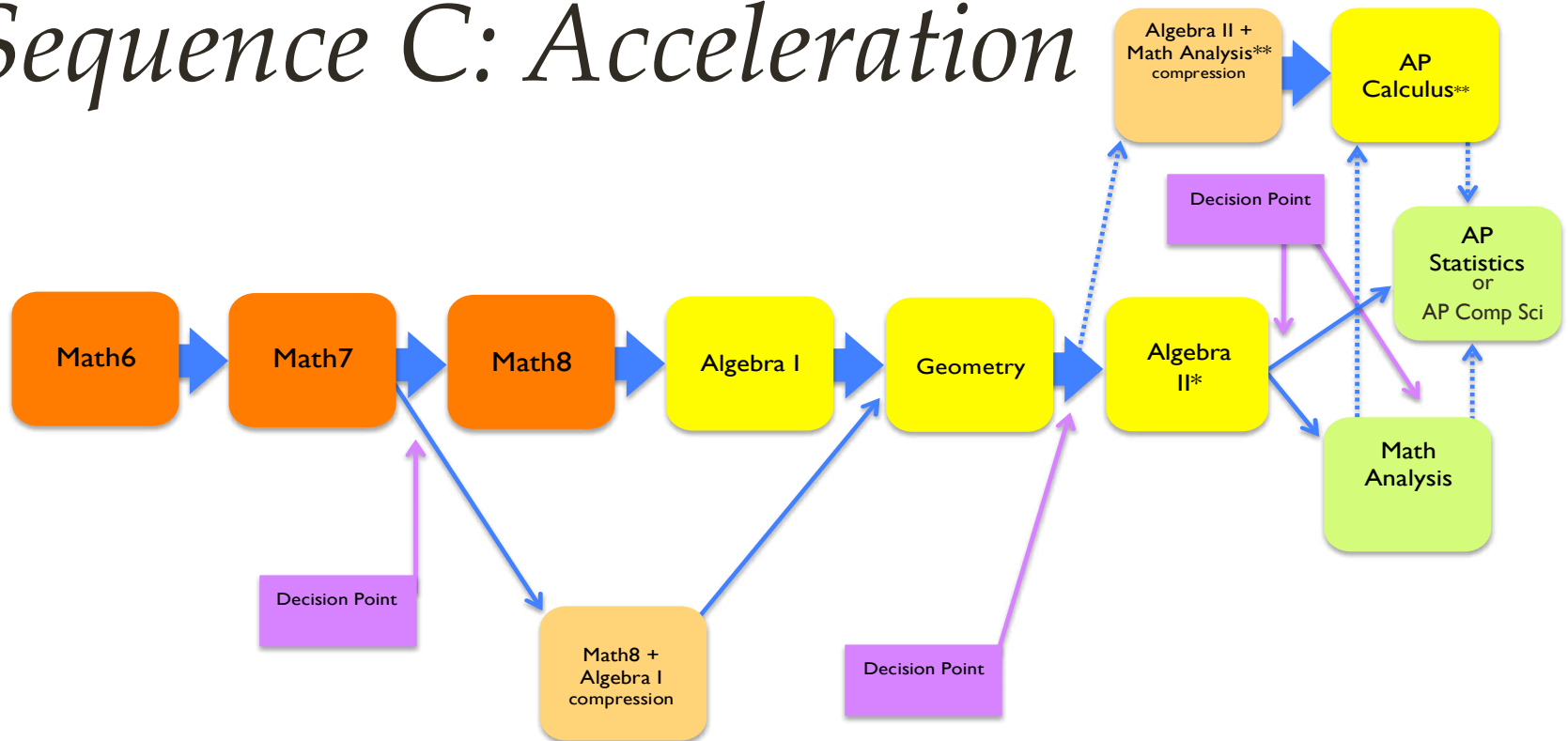
- Ensures a solid foundation in middle school mathematics in preparation for high school algebra and geometry.
- Prepares each student to graduate from high school prepared for college mathematics.
- Allows students to complete AP Calculus with one high school compression.
- Allows students to complete AP Statistics or AP Computer Science without compression.

Sequence B: Additional Support



- For students who are determined to graduate from high school college-ready, yet are not successful in one or more mathematics classes.
- Support courses have a goal of supporting students to continue in the core course sequence and experience greater success, or to re-enter the core course sequence after a year of support.
- Support course options exist in both middle and high school. They are concentrated early in the sequence so that students have solid understanding entering into Algebra II.
- Support is organized to reinforce skills from prior courses while students continue forward in the core course sequence.

Sequence C: Acceleration



- Recommended for students who know early on they are interested in a STEM field-related major and/or would like to apply to a highly selective college or university.
- Requires full commitment of student and family.
- AP Calculus is accessible to students who compress at just one point. Schools may offer different configurations of AP Calculus including AB and BC options.

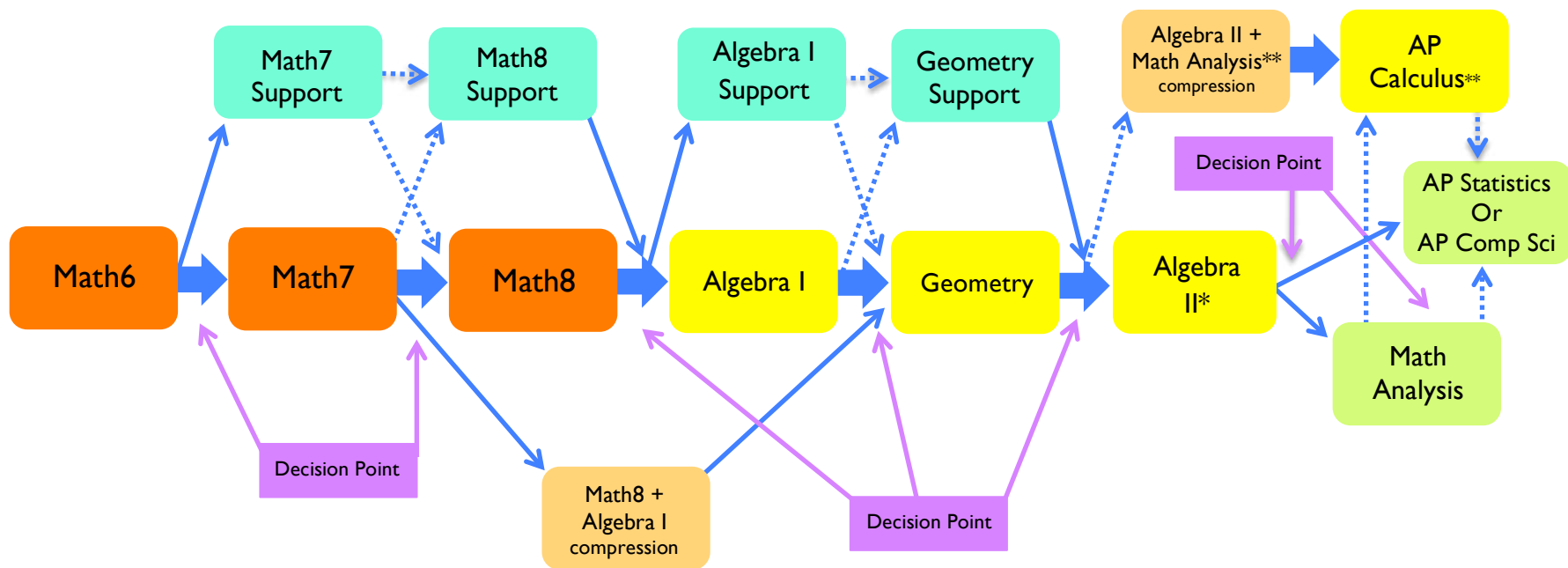
Insights from High School

- * Skyline High School mathematics teacher and math teacher leader Carlisa Johnson shares her perspective on:
 - * Algebra 1 rigor and prerequisites
 - * High school graduation requirements
 - * College preparation

Implementation Supports - current activities

- * Planning time for teachers (to build rigor within new courses, using new curriculum materials)
- * Professional development for teachers, teacher leaders, principals (summer and midyear)
- * Instructional materials for students (textbooks, photocopying, on-line licenses, devices)
- * Upgrading the assessment system
- * Resourcing new course sequence options - staffing, master scheduling, student/family decision-making process, intervention supports

OUSD Math Course Sequence



* Every student will complete Algebra II by the end of their senior year to meet the goal of college and career readiness. Students taking this course with success before or during their junior year are considered well prepared for the SMARTER Balanced 11th grade assessment.

** Recommended for students interested in applying to 4-year universities and colleges, especially those considering STEM majors.

Q&A

Thank you!

- * All information from tonight's session will be posted on the Skyline HS website.
- * Additional questions? Please contact the LCI Math Team at
TeamMath@ousd.k12.ca.us