CUMBERLAND
COUNTY SCHOOLS

8th Grade Math- EOG

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Our Commitment: Every Student
Collaborative ★ Competitive ★ Successful

THANK YOU FOR COMING TODAY!

Please make sure you sign in so your child gets credit for you attending.
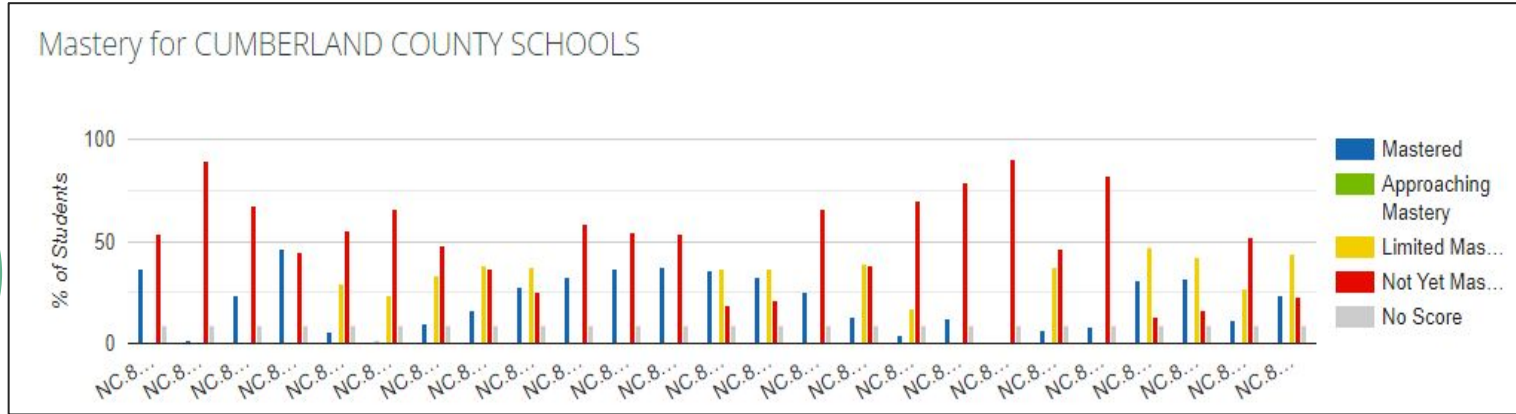
"There's trained, and there's untrained."

Turn and Talk

How does this video **relate** to students preparing for a test?

Distributed Summarizing

Notice & Wonder

8th grade Math

Mastery for CUMBERLAND COUNTY SCHOOLS

Legend:
- Mastered
- Approaching Mastery
- Limited Mas...
- Not Yet Mas...
- No Score

CUMBERLAND COUNTY SCHOOLS

Math EOG Test Specs

Table 2: Weight Distributions for EOG Mathematics Grades 6–8

Domain	Grade 6	Grade 7	Grade 8
Ratios and Proportional Relationships	24–28%	24–28%	—
The Number System	20–24%	8–12%	—
Expressions and Equations	22–26%	20–24%	—
The Number System, Expressions and Equations	—	—	24–28%
Functions	—	—	28–32%
Geometry	12–16%	16–20%	24–28%
Statistics and Probability	12–16%	22–26%	16–20%
Total	**100%**	**100%**	**100%**

Math EOG Question Levels

Table 3: EOG Math 3–8 Item by DOK Distribution

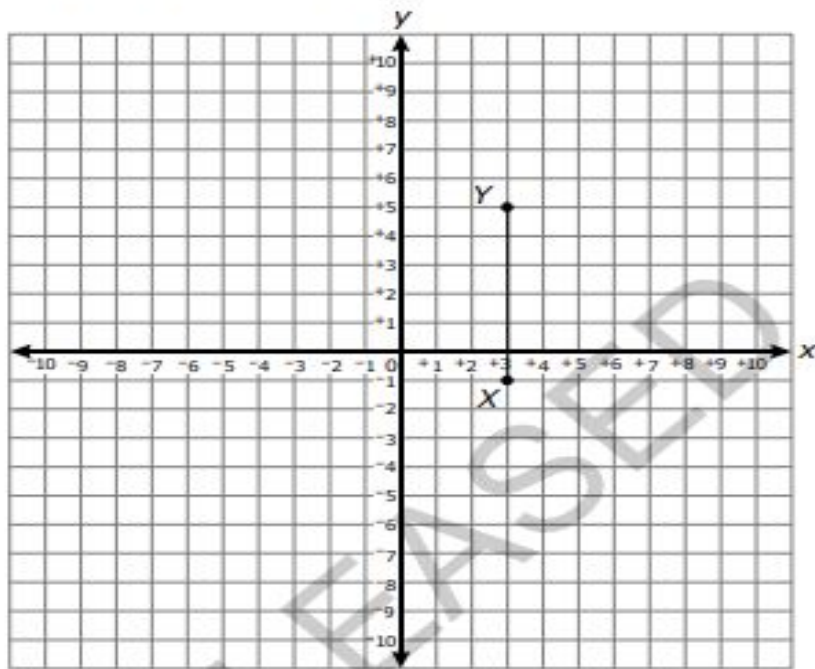| Grades	DOK1	DOK2	DOK3
3	40–50%	50–60%	—
4	35–45%	50–60%	5%
5	30–40%	50–60%	8–10%
6	25–35%	50–60%	8–15%
7	25–35%	50–60%	8–15%
8	25–35%	50–60%	8–15%

So what do these DOK questions look like?

The points $P(3, {}^-2)$, $Q(10, {}^-2)$, and $R(3, {}^-8)$ are the vertices of a triangle. What is the **approximate** length of side RQ?

A   7 units

B   9 units

C   11 units

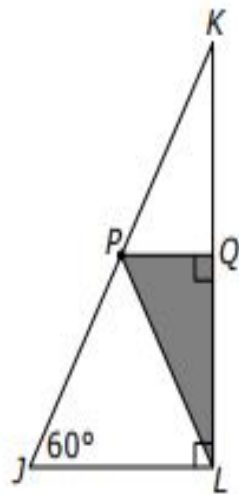D   13 units

Segment *XY* is graphed in the coordinate plane.

Which could be the coordinates of the third vertex, *Z*, of triangle *XYZ* so that it would have a hypotenuse with a length of $\sqrt{45}$ units?

A   (−1, 5)

B   (−1, −1)

C   (6, −1)

D   (8, 5)

In the figure, *JLK* is a right triangle, point *P* is the midpoint of side *JK*, and segment *PQ* is parallel to segment *JL*.

The length of segment *PK* is 4 units and the length of segment *PQ* is 2 units. What is the **approximate** perimeter of shaded triangle *PQL*?

A   10.0 units

B   9.5 units

C   9.0 units

D   8.5 units

To Earn a Level 5 I need to be able to:

Level 5

*Students at Level 5 demonstrate **comprehensive** understanding of grade level content standards, are on track for career and college, and are prepared for advanced content at the next grade/course.*

Level 5 students can:

- Apply the values of expressions involving square roots and cubed roots to the tenths and expressions involving π to the hundredths to solve real-world problems;
- Apply properties of integer exponents to generate equivalent expressions;
- Solve multistep equations involving square roots and cube roots;
- Solve multistep linear equations and inequalities involving complex fractions and decimals with the same variable on both sides;
- Compare properties of two linear functions that could be represented in a different way to solve real-world problems;
- Write an equation in slope-intercept form to model a real-world situation;
- Solve multistep angle-relationship problems (for example: shapes involving expressions for angles or finding the value of the angle or angles after finding x);
- Using the Pythagorean theorem, find the perimeter or area of a figure;
- Find the volumes of composite figures;
- Given a volume, find a missing dimension;
- Predict (using interpolation and extrapolation) using the line of best fit;
- Given a two-way table with relative frequencies (and table filled in with decimal values), determine the values that describe the real-world situation;
- Given a real-world scenario in paragraph form, construct and interpret a two-way table and its relative frequencies.

To Earn a Level 4 I need to be able to:

Level 4

Students at Level 4 demonstrate a **thorough** *understanding of grade level content standards and are on track for career and college.*

Level 4 students can:

- Estimate the values of expressions involving square roots and cubed roots to the tenths and expressions involving π to the hundredths;
- Locate rational approximations of irrational numbers on a number line;
- Apply properties of whole-number exponents to generate equivalent expressions involving power of power;
- Perform multiplication and division with numbers expressed in scientific notation to solve real-world problems (including how many times one number is of another);
- Use the definition of a perfect square to solve an equation with potentially two solutions;
- Solve multistep linear equations and inequalities with benchmark fractions (½, ⅓, ¼) or common denominators with the same variable on both sides;
- Recognize linear equations and inequalities with one variable that have one solution, infinitely many solutions, or no solution;

Level 4 cont.

- Recognize linear systems of equations that have one solution, infinitely many solutions, or no solution;
- Solve real-world and mathematical problems by writing and solving a system of linear equations by graphing;
- Compare properties of two linear functions that are each represented in a different way;
- Interpret the rate of change and initial value of a linear function;
- Identify a graph that represents qualitative features of a real-world function;
- Write an equation in slope-intercept form given at least two (x, y) values;
- Describe a sequence of transformations that can be used to exhibit congruence or similarity between two figures, limited to rotations about the origin in 90-degree increments and reflections across the x-axis and y-axis;
- Apply a sequence of transformations to model congruence or similarity between two figures;
- Solve real-world and mathematical problems involving angle relationships;
- Apply the Pythagorean theorem or its converse to solve real-world and mathematical problems in two dimensions;
- Use the relationship between the formulas for the volumes of cones, cylinders, and spheres to solve real-world problems;
- Construct and interpret a scatterplot for bivariate measurement data;
- Interpret the slope and y-intercept of an equation that models bivariate quantitative data;
- Interpret a two-way table and its relative frequencies.

To Earn a Level 3 I need to be able to:

Level 3

*Students at Level 3 demonstrate **sufficient** understanding of grade level content standards though some support may be needed to engage with content at the next grade/course.*

Level 3 students can:

- Estimate the values of square roots and cube roots to the tenths;
- Identify the two integers that a square root or cube root falls between (including on a number line);
- Recognize an irrational number as a nonrepeating, nonterminating decimal;
- Apply a single property of exponents to generate an equivalent expression;
- Apply properties of whole-number exponents to generate equivalent expressions involving multiplication and division;
- Use numbers expressed in scientific notation to estimate very large or very small numbers;
- Evaluate square roots of perfect squares and cube roots of perfect cubes for positive numbers less than or equal to 400;
- Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive, rational number;
- Solve multistep linear equations and inequalities involving integer coefficients with the same variable on both sides;
- Solve a system of linear equations by graphing when given the equations in slope-intercept form;
- Identify a function given a table, graph, or set of ordered pairs;
- Identify linear functions from tables, equations, and graphs;

Level 3 cont.

- Determine the rate of change and initial value of a linear relationship given at least two (x, y) values;
- Determine the rate of change and initial value of a linear relationship given a graph;
- Analyze the graph of a function to determine features such as increasing/decreasing and linear/nonlinear;
- Write an equation in slope-intercept form given a graph;
- Given ordered pairs, identify a rotation, reflection, dilation, and/or translation;
- Determine whether a rotation, reflection, dilation, and/or translation creates congruent or similar figures;
- Identify the angle-angle criterion for triangle similarity;
- Identify the relationships between interior and exterior angles and between angles created by parallel lines cut by a transversal;
- Apply the Pythagorean theorem to find the missing side of a right triangle;
- Apply the Pythagorean theorem to find the distance between two points in a coordinate system;
- Use the formulas for the volumes of cones, cylinders, and spheres to solve mathematical problems;
- Construct a scatterplot for bivariate measurement data, and identify clusters, outliers, and associations;
- Informally fit a straight line to a scatterplot that suggests linear association;
- Construct a two-way table, and calculate relative frequencies.

ShareFile: Student Reports

Left Report

Student Report
2021-22 Benchmark
4th Grade Math
Year Round/Traditional
Gap Pretest Administration
CASE Assessments

Name:	Student 5
Teacher:	Teacher 1
Period:	1
School:	ABCD Elementary
District:	Our County

NC Achievement Levels & Descriptions:

2 - Not Proficient
3 - Grade Level Proficient
4 - College & Career Ready/Solid Command
5 - College & Career Ready/Superior Command

Assessment Results

The Achievement Levels provided in this report are projections for how the student will do on their State Test. These projections are based upon the student's performance on this benchmark assessment. *

Achievement Data: 2

Formative Diagnostic Data

Stan/Obj	Description	AchLev
G; MD.1-3	Geom/Meas & Data	4
MD.5-8	Measurement & Data	2
NBT	Numbers Base Ten	2
NF.1-2	Fractions	2
NF.3-4	Fractions	2
OA.1-3	Ops & Alg Thinking	5
OA.6-7	Ops & Alg Thinking	2
OA.8-9	Ops & Alg Thinking	2

Depth of Knowledge

DoK1: Requires the basic recall of concepts, definitions, facts, and processes.

DoK1 Achievement Level: 2

DoK2: Requires the ability to apply skills and concepts, relationships, and main ideas.
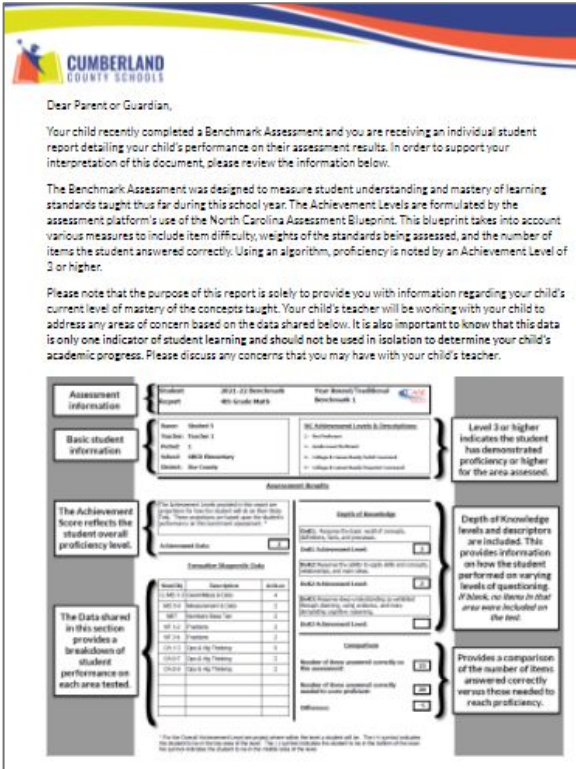
DoK2 Achievement Level: 2

DoK3: Requires deep understanding as exhibited through planning, using evidence, and more demanding cognitive reasoning.

DoK3 Achievement Level:

Comparison

Number of items answered correctly on this assessment: 15

Click image for sample report

Right Report

CUMBERLAND COUNTY SCHOOLS

Dear Parent or Guardian,

Your child recently completed a Benchmark Assessment and you are receiving an individual student report detailing your child's performance on their assessment results. In order to support your interpretation of this document, please review the information below.

The Benchmark Assessment was designed to measure student understanding and mastery of learning standards taught thus far during this school year. The Achievement Levels are formulated by the assessment platform's use of the North Carolina Assessment Blueprint. This blueprint takes into account various measures to include item difficulty, weights of the standards being assessed, and the number of items the student answered correctly. Using an algorithm, proficiency is noted by an Achievement Level of 3 or higher.

Please note that the purpose of this report is solely to provide you with information regarding your child's current level of mastery of the concepts taught. Your child's teacher will be working with your child to address any areas of concern based on the data shared below. It is also important to know that this data is only one indicator of student learning and should not be used in isolation to determine your child's academic progress. Please discuss any concerns that you may have with your child's teacher.

Click image

Student Report Explanation Letter

CUMBERLAND COUNTY SCHOOLS

Additional Math Re-Engagement Resources

★ Khan Academy- Practice Questions and Video Help

★ Free Practice Test- 26 questions

★ Successmaker- 15 minutes a day

Additional Resources

EOG/EOC:

Webex meeting recording: Jaime Gilas's Personal Room-20220410 1549-3

Password: CwuDPBD3

Recording link: https://ccs-k12.webex.com/ccs-k12/ldr.php?RCID=02cca797d298417ac97037a3ca1db498

EOG Tips Video

CLOSURE

Use a sentence starter below and complete the statement. Be prepared to share your response.

Today I learned…	I am still confused about…
I am most excited about…	A question I have is…

Are You Smarter Than An 8th Grader?