# New C45/45 GOALS Math Series

## The new Goals Math series

- Test content is aligned with College and Career Readiness Standards for Adult Education (CCRS) and up-coming NRS EFL Descriptors for ABE/ASE.
- Math concepts are assessed via common life and work applications.
- Both computer- and paperbased formats will be available.
- All NRS levels will be covered in 2 test levels: A/B AND C/D.
- A basic calculator will be provided/allowed.

## Math Abilities and Concepts Assessed:

- Number Sense
- Algebra
- Geometry
- Measurement
- Statistics and Data

The CASAS Goals Math Series is consistent with the CCRS focus on applying skills to real-world contexts and attaining a deeper understanding of math concepts.

EXAMPLE 1 — STATISTICS AND DATA

Which day had the most orders? TH

- a. Monday
- b.\* Wednesday
- c. Thursday
- d. Friday



An easy Statistics and Data task; simply extract relevant information from the graph.
(No calculation is needed) M5.1.1\*
Answer: B

EXAMPLE 2 — STATISTICS AND DATA

LEVEL C/D

What should you report to give the most accurate view of the week's lunch orders (as seen in the chart above)?

- a. The total number of orders for each day
- b. The total number of orders for the week
- c.\* The median of the daily orders during the week
- d. The average of the daily orders during the week

A more difficult Statistics and Data question; one must understand what will <u>affect</u> the measures of central tendency. (No calculation is needed) M5.2.3\*

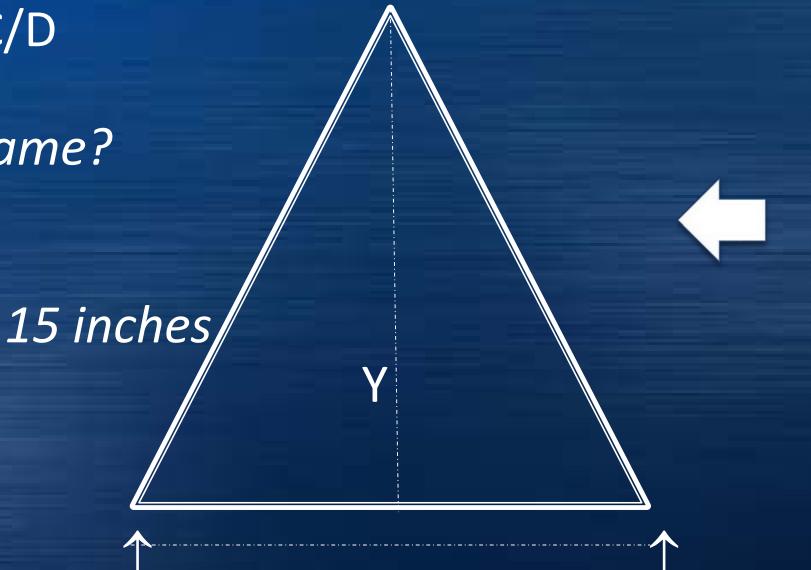
Answer: C

EXAMPLE 3 — ALGEBRA

LEVEL C/D

What is the approximate height (Y) of the frame?  $[a^2 + b^2 = hypotenuse^2]$ 

- a.\* about 14.1 inches
- b. about 15.8 inches
- c. about 20.5 inches
- d. about 75.0 inches



11 inches

Yes, there <u>is</u> a triangle, <u>BUT</u> to answer the question, one must use <u>Algebra!</u> This requires computation from a given equation. <u>M2.2.14\*</u>, <u>M2.2.6\*</u>

Answer: A

\*CASAS CONTENT STANDARD

## Spring & Summer 2017

## CASAS FIELD-TESTING ANNOUNCEMENT

Thank you in advance

Your agency can participate with CASAS in field-testing our new Reading and

for supporting Math GOALS tests linked to the College and Career Readiness Standards and

aligned with the NRS Educational Functioning Levels for adults.

CASAS efforts to

Field-testing update

create relevant

Over the past year, more than 200,000 adult students nationwide participated in field-testing. There are still opportunities for your agency to be a part of this exciting initiative!

tests for adults.

## FOR STUDENTS: Field-Testing CASAS New Math GOALS Assessment Series

## CASAS New Math GOALS Series Parallel Forms Study

<u>Participants</u>: Students enrolled in ABE, HSE and HSD programs and ESL students at intermediate and advanced levels.

<u>Methodology</u>: Students will be administered a new CASAS Math GOALS Series assessment. Within one week, each student will be administered the alternate parallel form.

<u>Time Commitment</u>: Allow approximately 10-15 minutes to collect demographic information. Allow 90 minutes for the 1st test and 90 minutes for the 2nd test.

**Gift Card:** Students will receive a \$10 gift card for participating.

## CASAS New Math GOALS Series Paper vs. Web Study

<u>Participants</u>: Students enrolled in ABE, HSE and HSD programs and ESL students at intermediate and advanced levels.

<u>Methodology</u>: Students will be administered a new CASAS Math GOALS Series assessment either on paper or on eTests. Within one week, each student will be administered the same test in the opposite format. For example, if their first test was on eTests, the second will be on paper and vice versa.

<u>Time Commitment</u>: Allow approximately 10-15 minutes to collect demographic information. Allow 90 minutes for the 1st test and 90 minutes for the 2nd test.

**Gift Card:** Students will receive a \$10 gift card for participating.

## CASAS New Math GOALS Series and HiSET Study

**Participants**: Students enrolled in ABE, HSE, and HSD programs.

Methodology: Student will be administered the HiSET Math and the CASAS Math Goals Series assessment.

<u>Gift card & Test Voucher</u>: Students will receive a voucher for the HiSET test and a \$5 gift card for participating.

## FOR TEACHERS: CASAS Teacher Feedback Study

**Participants**: Teachers who have students participating in one of the new Math GOALS Series studies.

<u>Purpose</u>: To examine how well students' ability as measured on the tests relates to students' ability according to the independent judgment of their teachers (concurrent validity), CASAS will ask ABE, HSE and HSD teachers to classify their students into the appropriate NRS Educational Functioning Level based on the students' observed skills. These classifications will be compared to student performance on a new CASAS GOALS Math Series assessment.

## **Methodology:**

- Teachers will complete a training to learn the descriptors and skills associated with each NRS Educational Functioning Level.
- Teachers will assign an NRS Educational Functioning Level to each student based on their knowledge of the student's ability.
- Teachers will make these judgments without knowing the score the student has received on the New CASAS Math GOALS Series Test.

<u>Time Commitment</u>: The training will last approximately 1.5 hours. The teacher should spend approximately 5 minutes per student to classify them into the appropriate NRS Level.

**Stipend**: Teachers will receive a stipend to compensate for the time spent in the training and for the classification of students.

## **Upcoming CASAS Field Testing Opportunities**

CASAS Reading for English Language Learners

CASAS Beginning Literacy for English Language Learners

CASAS Listening for English Language Learners

If interested, please send an email to fieldtesting@casas.org with the name of your agency, contact name and number of the person(s) in your agency who can help us successfully complete this project. A member of our field-testing team will contact you to answer any questions you may have and to discuss next steps.

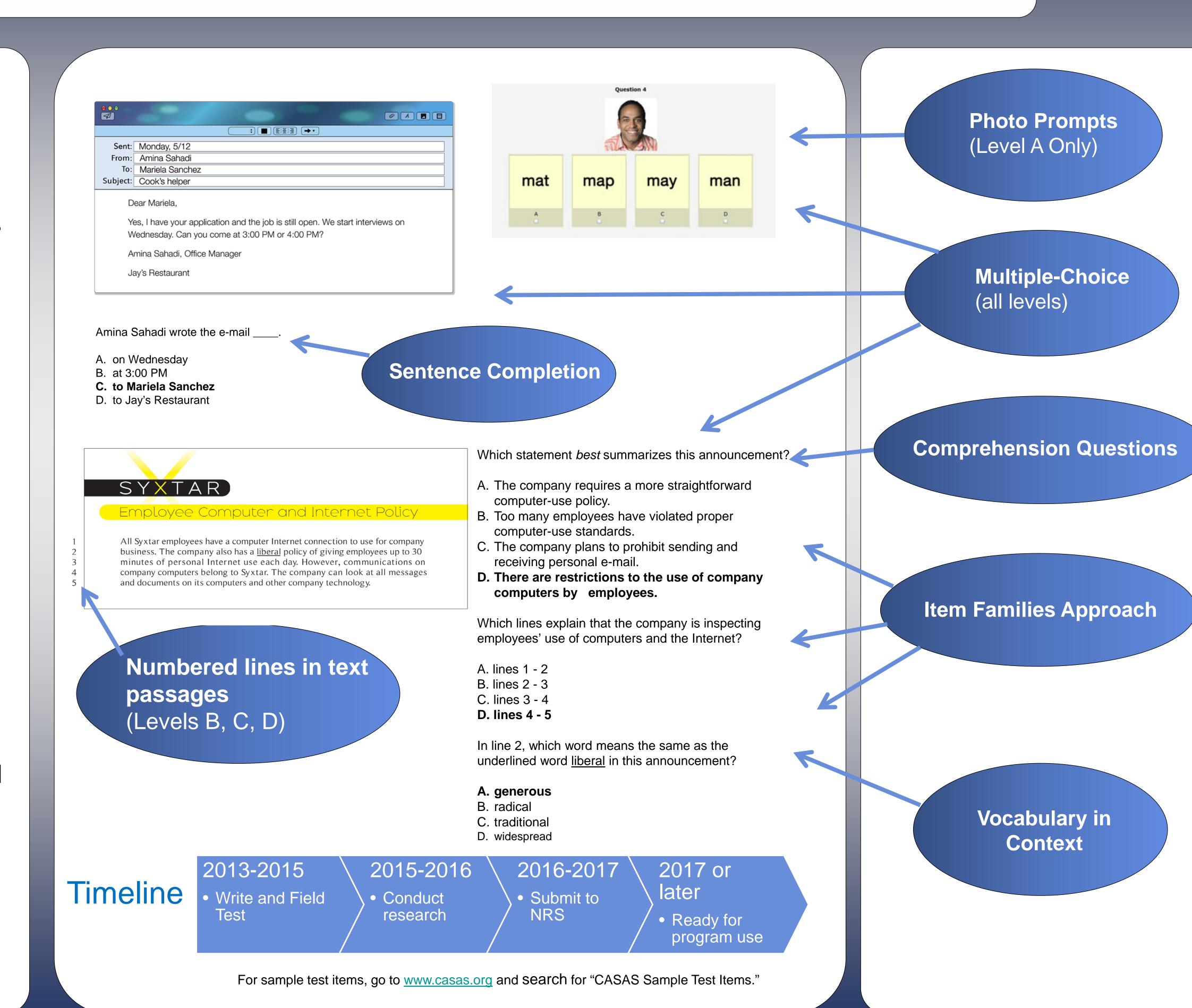
Or contact Karen Burger: kburger@casas.org Kay Hartley: khartley@casas.org

# New CASASGOALS Reading Series

## Introduction

CASAS is developing a new ABE/ASE reading test series for release in 2017.

- Test content is aligned with College and Career Readiness (CCR) Standards for Adult Education.
- Comprehension
   questions draw on higher
   order reading skills,
   including citing evidence
   from complex texts and
   summarizing.
- New question types include Sentence Completion and an "Item Families" approach.
- Both computer-based and paper-based testing will be available.
- NRS ABE/ASE levels will be covered in four test levels.



## **CASAS Assessment Update**

### **New CASAS GOALS Reading and Math Test Series**

- Strongly aligned to CCRS (College and Career Readiness Standards for Adult Education)
- Reading GOALS assesses higher order thinking skills (Depth of Knowledge), complex informational text, and vocabulary, including academic language.
- Math GOALS assesses Number Sense, Algebra, Geometry, Measurement, and Statistical Reasoning.
- Currently undergoing OCTAE NRS Test Review (ABE/ASE Reading and Math)
- New ELL Reading development and research studies dependent on release of new NRS ELL Descriptors by OCTAE

## CASAS Math Content Standards – available at casas.org

## **Revised CASAS Reading Content Standards (2016)**

- Streamlined, re-organized, shortened
- Incorporate CCRS standards
- Posted on CASAS website. Go to "Product Overviews," then "Curriculum Management and Instruction," then "CASAS Basic Skills Content Standards".

## CASAS NRS-approved Assessments -- Approved through February 2019:

- Life and Work Reading (80 series) and Beginning Literacy, Forms 27 and 28
- Life and Work Listening (980 series)
- Life Skills Math (30 series)

## **CASAS eTests and TOPSpro Enterprise**

- New: test delivery via tablets, starting with Chromebooks.
- All computer-delivered test forms can be used with a touch screen.
- Beginning Literacy Forms 27 and 28 are on eTests and can also be used with a touch screen.

### **CASAS Reading GOALS Series Blueprint**

Reading GOALS Content Areas	CCRS*	CASAS Level A	CASAS Level B	CASAS Level C	CASAS Level D
<ul> <li>Vocabulary</li> <li>High frequency sight words</li> <li>Academic vocabulary</li> <li>Meaning from context</li> </ul>	R4	25%	20%	20%	20%
<ul> <li>Reading Comprehension Skills</li> <li>Locate information/detail; cite evidence</li> <li>Main idea</li> </ul>	R1 R2	75%	50%	40%	20%
<ul> <li>Higher Order Reading Skills</li> <li>Cite evidence; infer; draw conclusions; summarize</li> <li>Text structure and features</li> <li>Author's purpose and point of view</li> <li>Analyze claim/argument</li> </ul>	R1, R2 R5 R6 R8		30%	40%	60%

<sup>\*</sup>CCRS Reading Standards R7, R9 and R10 are measured across content areas.

## **CASAS Math GOALS Series Blueprint**

CASAS Content Domains	CASAS Level* A/B	CASAS Level* C/D	College and Career Readiness Standards covered by
M1: Number Sense	22%	20%	<b>At the A/B level,</b> use basic concepts of number system, place values, operations of addition, subtraction, multiplication and division, fractions, fraction equivalents, ratios and proportions.
			<b>At the C/D level,</b> use advanced number concepts such as <i>comparing</i> fractions, using operations with rational numbers and exponents.
M2: Algebra	15%	30%	At the A/B level, understand and reason with properties of four operations, explain patterns in four operations, solve basic onevariable equations.  At the C/D level, generate equivalent equations and those with two or more variables, understand radicals, use lines and linear equations, use functions and functional expression, including inequalities, polynomials, quadratics, and exponential models.
M3: Geometry	10%	10%	At the A/B level, identify and reason with shapes and their attributes in 2- and 3-dimensions, find area and volume.  At the C/D level, solve problems of angle, area, congruence, similarity, trigonometry, volumes of cone, pyramids and spheres.
M4: Measurement**	28%	25%	At the A/B level, measure with standard units, time intervals, liquid masses and volumes, area, unit conversions, angle measurements.  At the C/D level, understand/apply Pythagorean theorem, use volume measurements for complex modeling.
M5: Statistics and Probability**	25%	15%	At the A/B level, understand categories, identify relevant data in tables, represent data in graphs, understand variability, and describe distributions.  At the C/D level, understand probability, sampling, draw inferences, summarize and interpret categorical and quantitative data, draw inferences, investigate associations in bivariate data.

<sup>\*</sup> New *CASAS Math Goals* series includes (4) pre and post-test forms at two (2) levels. They cover all six (6) NRS levels for mathematics.

- A/B Levels 2 alternate forms; 40 items each; covers CCRS Levels A-C
- C/D Levels 2 alternate forms; 38 items each; covers CCRS Levels C-E

For a more detailed test blueprints for the *GOALS* series, go to "What's New" on the home page of casas.org. For sample test items for the *GOALS* series, go to casas.org and search for "CASAS Sample Test Items."

Free CASAS Training modules -- Go to "Online Training" at casas.org. Email: training@casas.org

**General questions** about the CASAS system: <a href="mailto:casas@casas.org">casas@casas.org</a> CASAS phone: 800-255-1036; CASAS Tech Support: press 2

<sup>\*\*</sup> CCRS has <u>one</u> content domain - *Measurement and Data*. It is equivalent to the combination of CASAS content domains *M4*: *Measurement* and *M5*: *Statistics and Probability*.