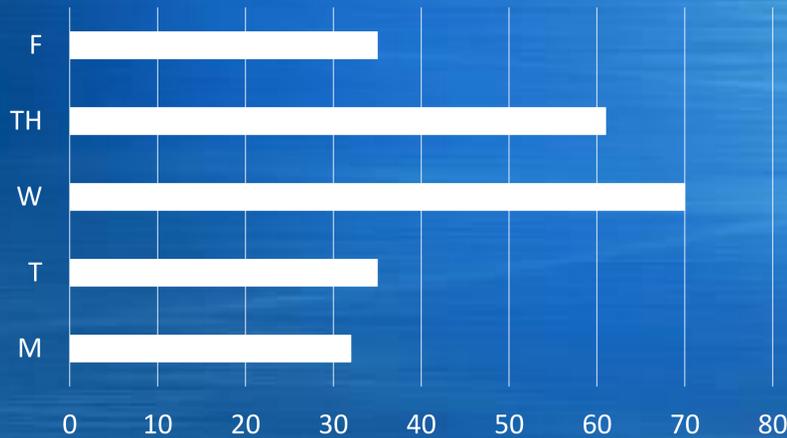# New CASAS GOALS Math Series

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 paper-based 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.
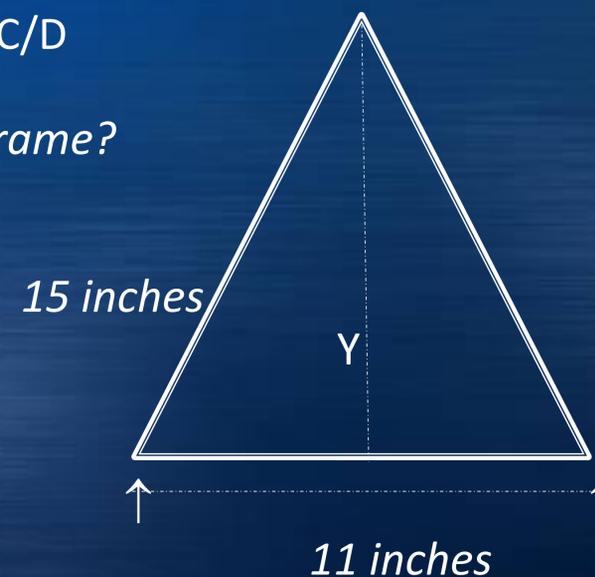

EXAMPLE 1 – STATISTICS AND DATA   LEVEL A/B

Lunch Cart Orders

Which day had the most orders?

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

0 10 20 30 40 50 60 70 80

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 *affect* 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

15 inches

Y

11 inches

Yes, there *is* a triangle, *BUT* to answer the question, one must use *Algebra*! This requires computation from a given equation.
M2.2.14, M2.2.6**
 Answer: A

**CASAS CONTENT STANDARD*

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
Vocabulary • High frequency sight words • Academic vocabulary • Meaning from context	**R4**	25%	20%	20%	20%
Reading Comprehension Skills • Locate information/detail; cite evidence • Main idea	**R1** **R2**	75%	50%	40%	20%
Higher Order Reading Skills • Cite evidence; infer; draw conclusions; summarize • Text structure and features • Author's purpose and point of view • Analyze claim/argument	**R1, R2** **R5** **R6** **R8**		30%	40%	60%

*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%	**At the A/B level,** use basic concepts of *number system, place values, operations of addition, subtraction, multiplication and division, fractions, fraction equivalents, ratios and proportions.* **At the C/D level,** use advanced number concepts such as *comparing 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 one-variable 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.*

* 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

** 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*.

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: casas@casas.org
CASAS phone: 800-255-1036; **CASAS Tech Support**: press 2

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CASAS FIELD-TESTING ANNOUNCEMENT

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Thank you in advance for supporting CASAS efforts to create relevant tests for adults.

Your agency can participate with CASAS in field-testing our new Reading and Math GOALS tests linked to the College and Career Readiness Standards and aligned with the NRS Educational Functioning Levels for adults.

Field-testing update

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!

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

CASAS New Math GOALS Series Parallel Forms Study

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

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

Time Commitment: 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

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

Methodology: 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.

Time Commitment: 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.

Gift card & Test Voucher: 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.

Purpose: 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.

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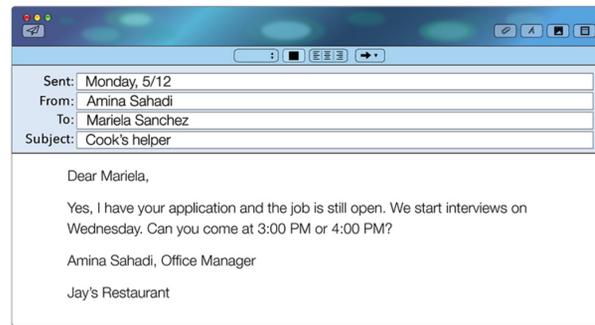**Or contact Karen Burger: kburger@casas.org**
Kay Hartley: khartley@casas.org

New CASAS GOALS 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.

Sent: Monday, 5/12
From: Amina Sahadi
To: Mariela Sanchez
Subject: Cook's helper

Dear Mariela,

Yes, I have your application and the job is still open. We start interviews on Wednesday. Can you come at 3:00 PM or 4:00 PM?

Amina Sahadi, Office Manager

Jay's Restaurant

Question 4

| mat | map | may | man |
| A | B | C | D |

Photo Prompts
(Level A Only)

Multiple-Choice
(all levels)

Amina Sahadi wrote the e-mail _____.

A. on Wednesday
B. at 3:00 PM
C. to Mariela Sanchez
D. to Jay's Restaurant

Sentence Completion

SYXTAR
Employee Computer and Internet Policy

1
2
3
4
5

All Syxtar employees have a computer Internet connection to use for company business. The company also has a liberal policy of giving employees up to 30 minutes of personal Internet use each day. However, communications on company computers belong to Syxtar. The company can look at all messages and documents on its computers and other company technology.

Numbered lines in text passages
(Levels B, C, D)

Which statement *best* summarizes this announcement?

A. The company requires a more straightforward computer-use policy.
B. Too many employees have violated proper computer-use standards.
C. The company plans to prohibit sending and receiving personal e-mail.
D. There are restrictions to the use of company computers by employees.

Which lines explain that the company is inspecting employees' use of computers and the Internet?

A. lines 1 - 2
B. lines 2 - 3
C. lines 3 - 4
D. lines 4 - 5

In line 2, which word means the same as the underlined word liberal in this announcement?

A. generous
B. radical
C. traditional
D. widespread

Comprehension Questions

Item Families Approach

Vocabulary in Context

Timeline

2013-2015	2015-2016	2016-2017	2017 or later
• Write and Field Test	• Conduct research	• Submit to NRS	• Ready for program use

For sample test items, go to www.casas.org and search for "CASAS Sample Test Items."