

## FAST™ CBMmath-Concepts and Applications (CAP)

Assessment of students' mathematics skills requires attention to multiple aspects of math proficiency. A new FAST™ tool for evaluating math skills is the CBMmath Concepts and Applications (CAP) test. During the 2016-2017 school year, CAP is in Lab phase. This means that it is available for FAST™ users but requires additional data analysis and user feedback before it will be recommended as part of a multi-tier system of support (MTSS). CAP is a computer-based assessment of applied math that includes items spanning computation fact fluency to multi-step algebra problems. Instead of grade levels, there are skill levels from 0 through 8.

### Materials:

CBMmath CAP items were developed from an existing bank of FAST™ math items, including those in the aMath and Standards-Based Math Assessments. The items were all developed in accordance with the mathematics learning hierarchy in the Common Core State Standards, including Counting and Cardinality, Operations and Algebraic Thinking, Number and Operations in Base 10, Number and Operations, Measurement and Data, and Geometry.

### Procedure:

This is a timed measure that is computer administered and computer scored.

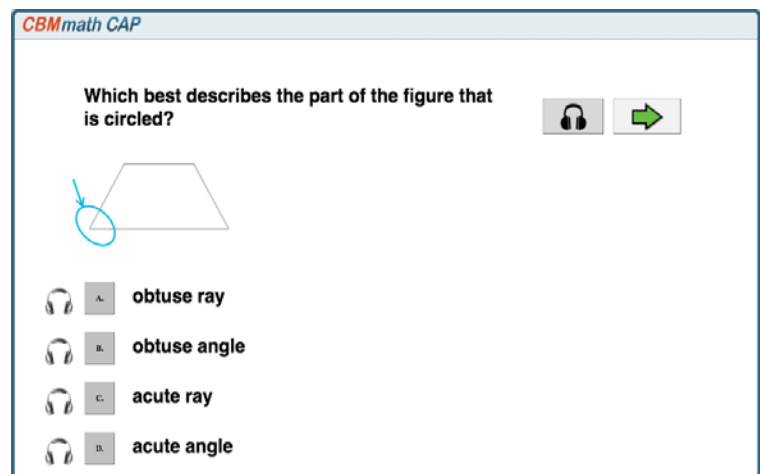
#### *Screening times by level:*

- K-3: 15 minutes
- 4-5: 20 minutes
- 6-8: 30 minutes

#### *Progress Monitoring times by level:*

- K-5: 15 minutes
- 6-8: 20 minutes

Students complete up to 20 math problems by selecting one of four answer choices. Each possible answer can be read aloud by clicking on a picture of headphones next to each answer choice. Students can also have each question re-read by clicking on a headphone picture.



### Scores:

CBMmath CAP reports the number of problems that a student got correct in 10 minutes. If a student takes shorter than 10 minutes to complete a CAP session, the score will be prorated to match a 10-minute interval.

### Uses:

CBMmath CAP can be used for both universal screening and for progress monitoring. When used for Fall screening, FAST™ recommends that students complete the level below the current grade. This is because the items in each level reflect content that might not yet been taught. For Winter and Spring screening, students

complete the level matching current grade. When used for progress monitoring, FAST™ recommends the level match the student's current grade unless the student is 3 or more years behind grade level in math skills.

### **Reports:**

The FAST™ system includes several different reports that teachers can use to understand CAP scores. The Group Screening Report provides a summary of student scores for a class or grade. The Progress Monitoring report shows an individual student's scores over time.

### **User Feedback:**

This measure was in development over the last four years. The results of multiple studies provide initial evidence for the reliability and validity of the scores. The measure is available in "FAST™ Lab" for the 2016-17 academic year. This will provide educators the opportunity to use the measure in practice and provide feedback to the development team. To provide feedback on CAP, please email [help@fastbridge.org](mailto:help@fastbridge.org).