National Center and State Collaborative

NCSC Math Activities with Scripted Systematic Instruction (MASSI): High School Ratio and Proportion Progress Monitoring and Skills Test

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The National Center and State Collaborative (NCSC) is applying the lessons learned from the past decade of research on alternate assessments based on alternate achievement standards (AA-AAS) to develop a multi-state comprehensive assessment system for students with significant cognitive disabilities. The project draws on a strong research base to develop an AA-AAS that is built from the ground up on powerful validity arguments linked to clear learning outcomes and defensible assessment results, to complement the work of the Race to the Top Common State Assessment Program (RTTA) consortia.

Our long-term goal is to ensure that students with significant cognitive disabilities achieve increasingly higher academic outcomes and leave high school ready for post-secondary options. A well-designed summative assessment alone is insufficient to achieve that goal. Thus, NCSC is developing a full system intended to support educators, which includes formative assessment tools and strategies, professional development on appropriate interim uses of data for progress monitoring, and management systems to ease the burdens of administration and documentation. All partners share a commitment to the research-to-practice focus of the project and the development of a comprehensive model of curriculum, instruction, assessment, and supportive professional development. These supports will improve the alignment of the entire system and strengthen the validity of inferences of the system of assessments.

IDEAs that Work
U.S. Office of Special Education Programs

The contents of this document were developed as part of the National Center and State Collaborative by Keri Bethune and Diane Browder at University of North Carolina at Charlotte and verified by Amy Lehew, math content expert, under a grant from the Department of Education (PR/Award #: H373X100002, Project Officer, Susan.Weigert@Ed.gov). However, the contents do not necessarily represent the policy of the U.S. Department of Education and no assumption of endorsement by the Federal government should be made.

These materials and documents were developed under the National Center and State Collaborative (NCSC) General Supervision Enhancement Grant and are consistent with its goals and foundations. Any changes to these materials are to be consistent with their intended purpose and use as defined by NCSC.

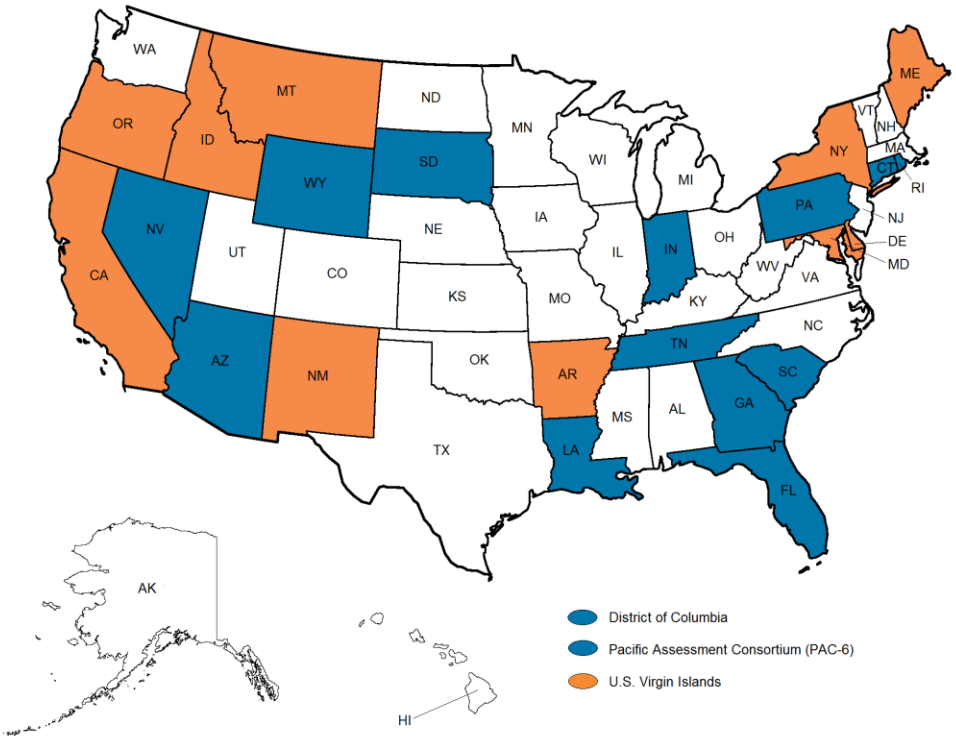
This document is available in alternative formats upon request.

National Center and State Collaborative

NCSC is a collaborative of 15 states and five organizations.

The states include (shown in blue on map): Arizona, Connecticut, District of Columbia, Florida, Georgia, Indiana, Louisiana, Nevada, Pacific Assessment Consortium (PAC-6)[1], Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, and Wyoming.

Tier II states are partners in curriculum, instruction, and professional development implementation but are not part of the assessment development work. They are (shown in orange on map): Arkansas, California, Delaware, Idaho, Maine, Maryland, Montana, New Mexico, New York, Oregon, and U.S. Virgin Islands.



*Core partner states are blue in color and Tier II states are orange in color.

[1] The Pacific Assessment Consortium (including the entities of American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Republic of Palau, and Republic of the Marshall Islands) partner with NCSC as one state, led by the University of Guam Center for Excellence in Developmental Disabilities Education, Research, and Service (CEDDERS).

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The five partner organizations include: The National Center on Educational Outcomes (NCEO) at the University of Minnesota, The National Center for the Improvement of Educational Assessment (Center for Assessment), The University of North Carolina at Charlotte, The University of Kentucky, and edCount, LLC.

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Student Name: _____

MASSI: High School Ratio and Proportion

Options for Progress Monitoring/ Formative Assessment

1. High School Ratio and Proportion Progress Monitoring- responses made during instruction; teacher records each step correct during or just after the lesson.

2. High School Ratio and Proportion Skills Test- a brief on demand performance assessment; could be given weekly to see if student has mastered this lesson; also helps student practice responding in a test format

    a. NOTE: The Skill Test can also be readministered to check for maintenance throughout the year

Student Name: _____

High School Ratio and Proportion Progress Monitoring

Directions: Score each step during instruction or as soon as the lesson is complete. Score the step as unprompted correct with a "+." Use a system to code level of prompting required for incorrect responses (e.g., V = verbal prompt, G = gesture, P = physical). Graph the number of unprompted correct responses to monitor progress.

BUILDING ESSENTIAL UNDERSTANDING: Match a point not on a line as not being part of a linear data set.

Materials and Directions for Teacher	*Instructional Cue*	*Student Expected Response*	*Date:*					
1. Minimum wage graph with outliers	Point to outlier, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "NOT data set."						
2. As above.	Point to outlier, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "NOT data set."						
3. As above.	Point to point in data set, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "data set."						
4. As above.	Point to outlier, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "NOT data set."						
5. As above.	Point to point in data set, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "data set."						
6. As above.	Point to outlier, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "NOT data set."						
7. As above.	Point to outlier, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "NOT data set."						
8. As above.	Point to point in data set, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "data set."						
9. As above.	Point to point in data set, **"Is this part of the data set or NOT part of the data set?"**	Student says/indicates "data set."						
		NUMBER CORRECT:						

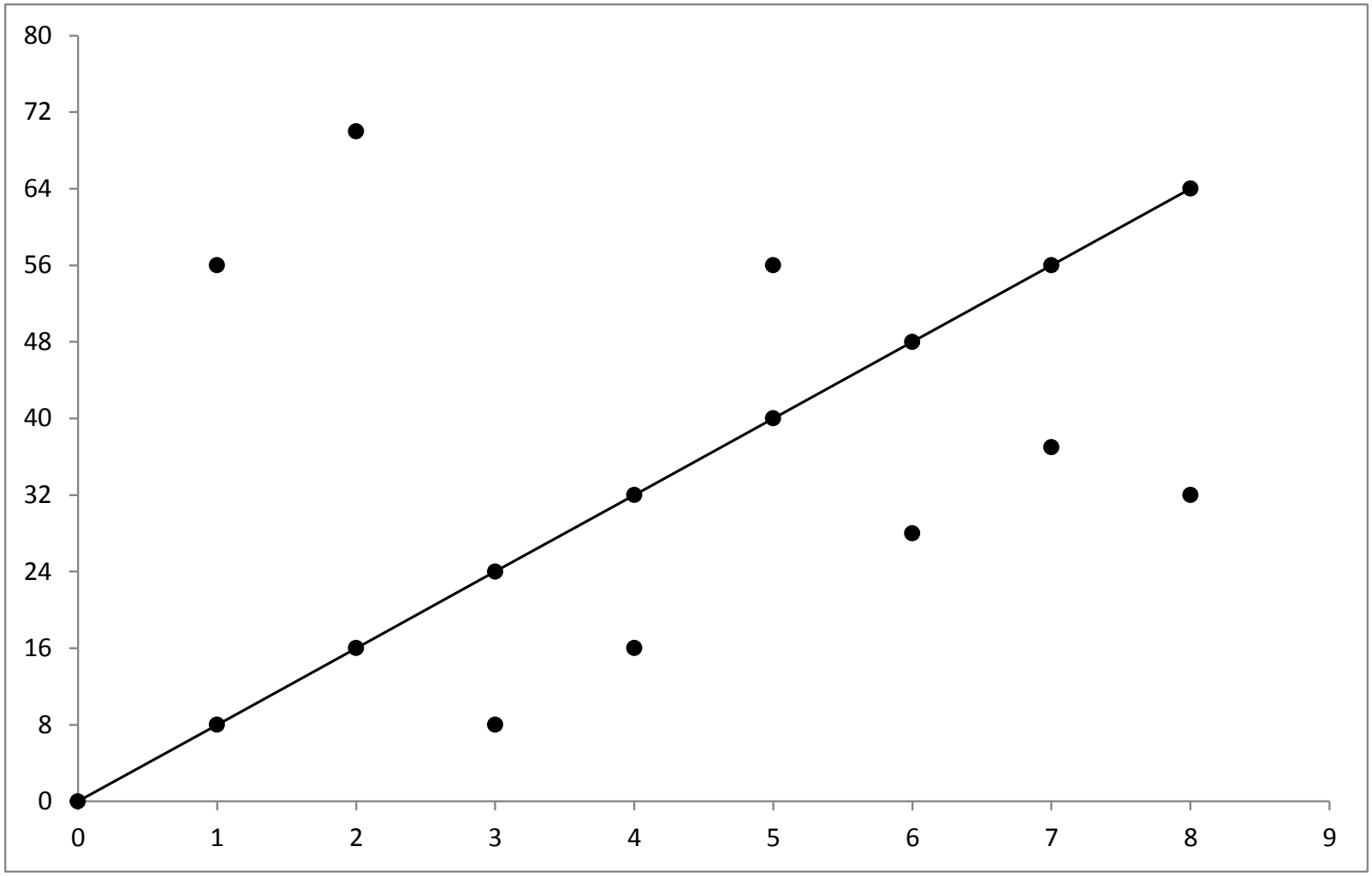
Student Name: _____

HS BUILD A GRADE ALIGNED COMPONENT: Identify graphs which match wages for jobs.								
10. Job Pay chart, file clerk graph and a non-linear graph.	Display Job Pay chart and point to file clerk. **This chart says that file clerks make $13 an hour.** Display file clerk graph and a non-linear graph. **Point to the graph that matches the file clerks wages.**	Student indicates file clerk graph.						
11. Job Pay chart, file cook and a non-linear graph	Display Job Pay chart and point to cook. **This chart says that cooks make $13 an hour.** Display cook and a non-linear graph. **Point to the graph that matches the cooks' wages.**	Student indicates cook graph.						
12. Job Pay chart, teacher assistant and a non-linear graph	Display Job Pay chart and point to teacher assistant. **This chart says that teacher assistants make $13 an hour.** Display teacher assistant and a non-linear graph. **Point to the graph that matches the teacher assistants' wages.**	Student indicates teacher assistant graph.						
13. Job Pay chart, auto mechanic graph and linear (not in correct position) graph	Display Job Pay chart and point to auto mechanic. **Okay, now listen carefully. This chart says that auto mechanics make $13 an hour.** Display auto mechanic graph and linear (not in correct position) graph. **Point to the graph that matches the auto mechanics wages.**	Student indicates auto mechanics graph.						
		NUMBER CORRECT:						

Student Name: _____

RATIO AND PROPORTION SKILL TEST 1: Building Essential Understanding: Discriminating if points are or are not part of a linear data set.

Have students cross out all the points that are NOT part of the linear data set.



Student Name: _____

RATIO AND PROPORTION SKILLS TEST 2: HS Build a Grade Aligned Component: Identify graphs which match wages for jobs.