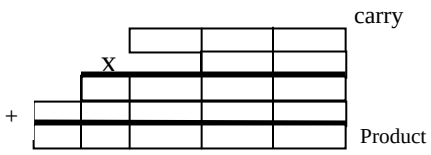
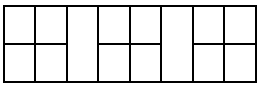
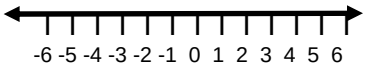
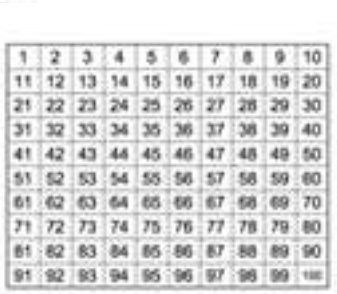
Explanation of Testing Accommodations for Students with Disabilities
Math Aids – Accommodation Code 19

Accommodations provided as part of the instructional and testing/assessment process will allow students with disabilities equal opportunity to access the Standards of Learning (SOL) assessments. Accommodations based solely on the potential to enhance performance beyond providing equal access are not allowed.

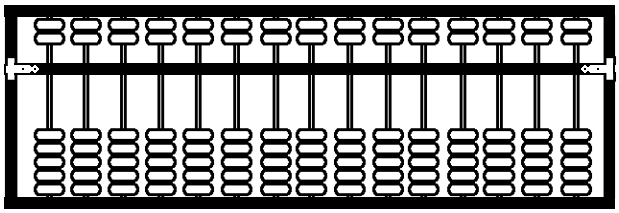
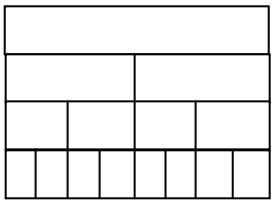
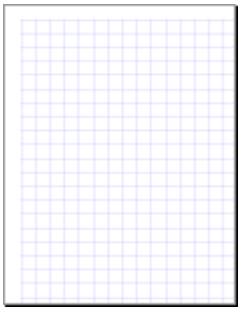
Accommodations used on SOL assessments must be documented in the student's Individualized Education Program/ 504 Plan and used in daily instruction. Using new or unfamiliar accommodations on an SOL test is inappropriate.

Allowed Math Aids

<table>
<tr><th>Examples of allowed math aids that may provide equal access to the SOL mathematics assessment for some students with disabilities.</th><th>Example/ explanation of the allowed accommodations.</th></tr>
<tr><td>Multiplication chart
Students allowed to use this accommodation must be found eligible by their IEP/504 teams using the calculator accommodation criteria (Testing Memo #720).</td><td>
<table>
<tr><th>X</th><th>1</th><th>2</th><th>3</th><th>4</th></tr>
<tr><td>1</td><td>1</td><td>2</td><td>3</td><td>4</td></tr>
<tr><td>2</td><td>2</td><td>4</td><td>6</td><td>8</td></tr>
<tr><td>3</td><td>3</td><td>6</td><td>9</td><td>12</td></tr>
<tr><td>4</td><td>4</td><td>8</td><td>12</td><td>16</td></tr>
</table>
</td></tr>
<tr><td>Addition Chart
Students allowed to use this accommodation must be found eligible by their IEP/504 teams using the calculator accommodation criteria (Testing Memo #720).</td><td>
<table>
<tr><th>+</th><th>1</th><th>2</th><th>3</th><th>4</th></tr>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr>
<tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr>
<tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr>
<tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr>
</table>
</td></tr>
<tr><td>Blank worksheets that assist students in correctly lining up numbers when writing a math problem</td><td> 
</td></tr>
<tr><td>Grid Blocks Worksheets</td><td>  </td></tr>
<tr><td>Number Line</td><td> 
</td></tr>
<tr><td>Counting Strip</td><td>  </td></tr>
</table>

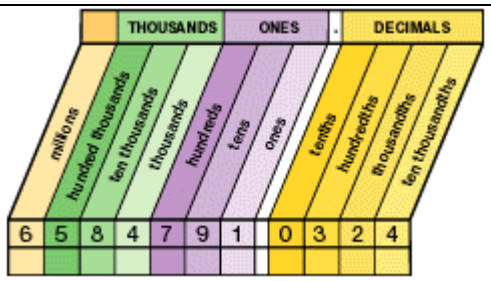
Hundreds Chart	
12 inch ruler with centimeters	 
Colored shapes	
Cuisenaire Rods	
Video magnifier (for visually impaired students)	
Multiplication Machine *Students allowed to use this accommodation must be found eligible by their IEP/504 teams using the calculator accommodation criteria (Testing Memo #720).*	

Allowed Math Aids

Abacus	
Blank Fraction Bars	
Golf Beads	
Graph paper	
Fraction circles	

Allowed Math Aids

Math Aids Not Allowed

<table>
<tr><th>Examples of math aids that have the potential to enhance performance beyond providing equal access and are <u>not</u> allowed for SOL mathematics assessments.</th><th>Example/ explanation of math aids that are <u>not</u> allowed.</th></tr>
<tr><td>Place Value Chart</td><td> 
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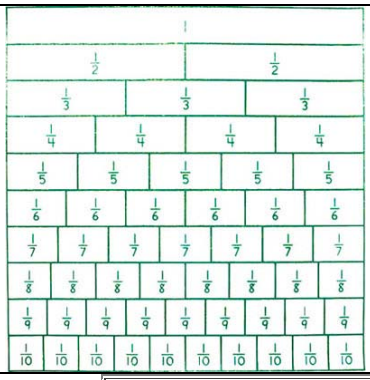
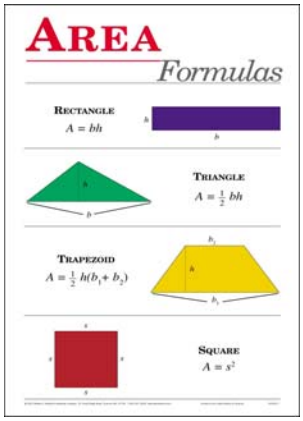
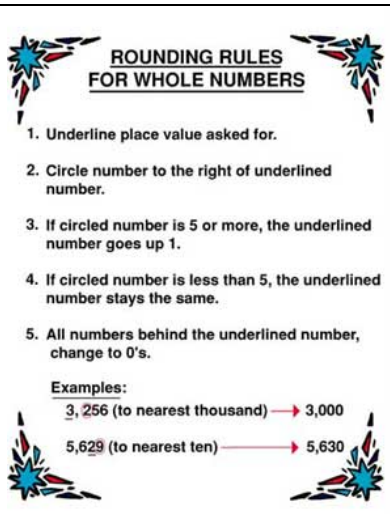
<tr><td>Fraction Chart</td><td>  </td></tr>
<tr><td>Problem solving key words charts</td><td><table>
<tr><td>Addition</td><td>increased by
more than
combined, together
total of
sum
added to</td></tr>
<tr><td>Subtraction</td><td>decreased by
minus, less
difference between/of
less than, fewer than</td></tr>
</table></td></tr>
<tr><td>Measurement Conversion Charts</td><td> 
</td></tr>
</table>

Temperature conversion charts	<table><tr><th>Celsius °C</th><th>Fahrenheit °F</th></tr><tr><td>-30 °C</td><td>-22 °F</td></tr><tr><td>-20 °C</td><td>-4.0 °F</td></tr><tr><td>-10 °C</td><td>14.0 °F</td></tr><tr><td>0 °C</td><td>32.0 °F</td></tr><tr><td>1 °C</td><td>33.8 °F</td></tr><tr><td>2 °C</td><td>35.6 °F</td></tr></table>
Elapsed time ruler	
Charts of formulas and/or symbols	 
Rounding charts	

Math Aids Not Allowed

Clocks

Coins, bills (real and play money)

Vocabulary Charts

Word	Definition
Acute angle	An angle that measures between 0 and 90 degrees
Acute triangle	All angles in the triangle are acute
Adjacent angles	Two coplanar angles with a common side, a common vertex, and no common interior points
Angle	The shape formed by two rays (called sides of the angle) with the same endpoint (called the vertex of the angle). In geometry an angle can be defined by the vertex **or** by the rays and vertex.
Angle bisector	A ray that divides an angle into two congruent (equal) angles
Arc	Part of a circle

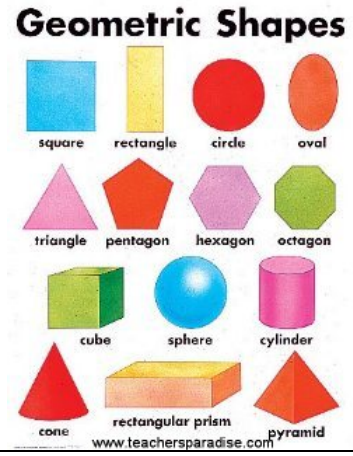
Tables of Measures

from \ to	= __ feet	= __ inches	= __ miles	= __ yards
foot		12	1/5280	1/3
inch	1/12		1/63360	1/36
mile	5280	63360		1760
yard	3	36	1/1760	

Math Aids Not Allowed

Time conversion charts	Time 1 minute = 60 seconds 1 hour = 60 minutes = 3600 seconds 1 day = 24 hours 1 week = 7 days 1 year = 365 1/4 days (for the Earth to travel once around the sun)
Charts that demonstrate how a mathematics problem is solved	**SOLVING WORD PROBLEMS** 1. Read the problem carefully. 2. Cross out unnecessary information. 3. Show your work. Don't do it in your head. 4. Don't erase your mistakes. Cross out errors instead. 5. Re-read your problem and check your answers. 6. Draw a picture that illustrates the problem. 7. Write in your own words how you got your answer.
Gallon Man	
Set of weights	
Base 10 Blocks	
Scissors	

Math Aids Not Allowed

Money Equivalency Chart	 
Time Equivalency Chart	**Time** 1 minute (min) = 60 seconds (sec) 1 hour (hr) = 60 min 1 day = 24 hr 1 week = 7 days 1 year = 12 months = 365 days
Tally Mark Chart	I = 1 II = 2 III = 3 IIII = 4 𝍸 = 5 𝍸 I = 6 𝍸 II = 7 𝍸 III = 8 𝍸 IIII = 9 𝍸 𝍸 = 10
Shape Chart	

Math Aids Not Allowed