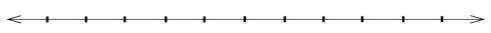


Approved Supplemental Mathematics Reference Sheet— Grade 4

ONLY for use by students on the MCAS Mathematics test who have this accommodation listed in their IEP or 504 plan

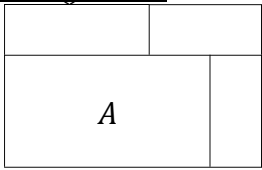
Note: Students may NOT use a reference sheet that has already been filled out prior to the beginning of the test administration, and test administrators MUST check to confirm that they are providing students with blank sheets.

| General Problem-Solving Strategies | | | | | | | Symbols | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----|---|---|---|----------|---|---|--|--|--|--|----------|--|--|----|----|----|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|---|--|---|---------------------------|---|--|---|-----------------------------|---|--|---|--|----|------------------------|
| <ul style="list-style-type: none"> Reread question for clarity Draw a picture Make a table Circle or highlight key terms Calculate and solve See if my answer makes sense Circle my answer | | | | | | | <p>is greater than</p> <p>is less than</p> <p>is equal to</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Place Value | | | | | | | Divisibility Rules | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="6" style="text-align: center;">Whole Numbers</th> <th colspan="3" style="text-align: center;">Decimals</th> </tr> <tr> <th style="text-align: center;">Ht</th> <th style="text-align: center;">Tt</th> <th style="text-align: center;">Th</th> <th style="text-align: center;">H</th> <th style="text-align: center;">T</th> <th style="text-align: center;">O</th> <th style="text-align: center;">.</th> <th style="text-align: center;">T</th> <th style="text-align: center;">H</th> </tr> </thead> <tbody> <tr> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> <td style="width: 30px; height: 20px;"></td> </tr> </tbody> </table> | | | | | | | Whole Numbers | | | | | | Decimals | | | Ht | Tt | Th | H | T | O | . | T | H | | | | | | | | | | <table border="1" style="margin: auto; border-collapse: collapse;"> <tbody> <tr> <td style="text-align: center; width: 30px;">2</td> <td>If the last digit is even</td> </tr> <tr> <td style="text-align: center;">3</td> <td>If the sum of the digits can be divided by 3</td> </tr> <tr> <td style="text-align: center;">5</td> <td>If the last digit is 0 or 5</td> </tr> <tr> <td style="text-align: center;">6</td> <td>If the number is divisible by both 2 and 3</td> </tr> <tr> <td style="text-align: center;">9</td> <td>If the sum of the digits can be divided by 9</td> </tr> <tr> <td style="text-align: center;">10</td> <td>If the last digit is 0</td> </tr> </tbody> </table> | | 2 | If the last digit is even | 3 | If the sum of the digits can be divided by 3 | 5 | If the last digit is 0 or 5 | 6 | If the number is divisible by both 2 and 3 | 9 | If the sum of the digits can be divided by 9 | 10 | If the last digit is 0 |
| Whole Numbers | | | | | | Decimals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ht | Tt | Th | H | T | O | . | T | H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | If the last digit is even | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | If the sum of the digits can be divided by 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | If the last digit is 0 or 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | If the number is divisible by both 2 and 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | If the sum of the digits can be divided by 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | If the last digit is 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number Line | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hundreds Chart | | | | | | | Formulas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

Area () of Rectangle
()

Area () Model



Perimeter ()

Fractions

Add or Subtract - need like denominators

| Time Conversions | Metric Conversions |
|---|--|
| 1 year = 365 days 1 day = 24 hours 1 hour = 60 minutes 1 minute = 60 seconds | 1 kilometer (km) = 1000 meters (m) 1 meter (m) = 100 centimeters (cm) 1 meter (m) = 1000 millimeters (mm) 1 kilogram (kg) = 1000 grams (g) 1 liter (L) = 1000 milliliters (mL) |

Multiplication Table (NOTE: DO NOT COMPLETE THIS TABLE FOR THE STUDENT)

| X | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | |

Fraction Bars (NOTE: DO NOT COMPLETE THIS TABLE FOR THE STUDENT)

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
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