**Approved Supplemental Mathematics Reference Sheet**

**Grade 4**

(For use by students on the MCAS Mathematics test who have this accommodation)

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| --- | --- |
| **General Problem Solving Strategies** | **Symbols** |
| * 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 | is greater than  is less than  is equal to |
| **Place Value** | **Divisibility Rules** |
| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 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** |
| **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   |  |  |  | | --- | --- | --- | |  |  | | | *A* | | |  |   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** | |
| |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | X | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | 1 |  |  |  |  |  |  |  |  |  |  | | 2 |  |  |  |  |  |  |  |  |  |  | | 3 |  |  |  |  |  |  |  |  |  |  | | 4 |  |  |  |  |  |  |  |  |  |  | | 5 |  |  |  |  |  |  |  |  |  |  | | 6 |  |  |  |  |  |  |  |  |  |  | | 7 |  |  |  |  |  |  |  |  |  |  | | 8 |  |  |  |  |  |  |  |  |  |  | | 9 |  |  |  |  |  |  |  |  |  |  | | 10 |  |  |  |  |  |  |  |  |  |  | | |
| **Fraction Bars** | |
| Fractions Bars | |