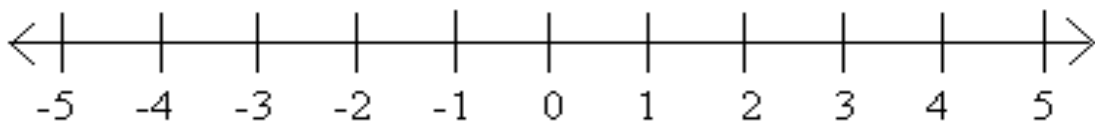
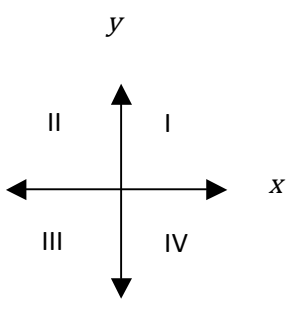


Approved Supplemental Mathematics Reference Sheet Grade 7

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

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 $<$ is less than $=$ is equal to absolute value \leq is less than or equal to \geq is greater than or equal to</p>																																										
Place Value	Divisibility Rules																																										
<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="6">Whole Numbers</th> <th colspan="4">Decimals</th> </tr> <tr> <th>Ht</th><th>Tt</th><th>Th</th><th>H</th><th>T</th><th>O</th><th>.</th><th>T</th><th>H</th><th>Th</th> </tr> </thead> <tbody> <tr> <td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td> </tr> </tbody> </table>	Whole Numbers						Decimals				Ht	Tt	Th	H	T	O	.	T	H	Th											<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <tbody> <tr> <td style="width: 10%;">2</td> <td>If the last digit is even</td> </tr> <tr> <td>3</td> <td>If the sum of the digits can be divided by 3</td> </tr> <tr> <td>5</td> <td>If the last digit is 0 or 5</td> </tr> <tr> <td>6</td> <td>If the number is divisible by both 2 and 3</td> </tr> <tr> <td>9</td> <td>If the sum of the digits can be divided by 9</td> </tr> <tr> <td>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
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10	If the last digit is 0																																										
Number Line																																											
																																											

Hundreds Chart										Coordinate Plane
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	
Devices and Operations										Percentages and Proportions
<ul style="list-style-type: none"> PEMDAS Same sign - sum Different sign - difference 										<ul style="list-style-type: none"> $\frac{is}{of} = \frac{\%}{100}$ if $\frac{a}{b} = \frac{c}{d}$, then $ad = bc$
Properties										Fractions
<ul style="list-style-type: none"> $a(b + c) = ab + ac$ $a + (b + c) = (a + b) + c$ $a \cdot (b \cdot c) = (a \cdot b) \cdot c$ $a \cdot b = b \cdot a$ $a + b = b + a$ 										<ul style="list-style-type: none"> $\frac{a}{b} + \frac{c}{d} = \frac{ad+bc}{bd}$ $\frac{a}{b} - \frac{c}{d} = \frac{ad-bc}{bd}$ $\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$ $\frac{a}{b} \div \frac{c}{d} = \frac{ad}{bc}$
Statistics										Probability
<ul style="list-style-type: none"> me<u>A</u>n <u>M</u>Ode me<u>D</u>Ian <u>R</u>ang<u>E</u> 										$P = \frac{\text{favorable outcomes}}{\text{possible outcomes}}$

Multiplication Table

X	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										