<u>MATH SUMMER REQUIREMENT – 2023</u> <u>Multiplication Fact Fluency and Speed</u>

Purpose: To maintain and improve speed and fluency of multiplication facts over the summer.

Action: Complete at least 3 of the attached practice tests to turn in to your math teacher next year. Time yourself and compare your time to the requirement for your grade. If your speed is does not meet the requirement for your grade level, you should continue working. There are additional practice pages attached or you can visit this website for additional pages (Multiplication Facts to 144 (50 Questions) (No Zeros or Ones) (A) (math-drills.com)).

Accountability: Students will be tested the first four Fridays of the upcoming school year. If a student receives 95% accuracy in the allotted time, they will receive their fluency completion grade. If they do not meet this requirement by the fourth Friday, they will begin to have extra fluency work in addition to their traditional homework. This work will count as a grade and will be entered in the gradebook each week. The students will have an opportunity the last week of each month to take the timed test with their class and test out of the remediation work. Students may fluctuate in and out of the remediation work as their score requires. Students will need to maintain fluency throughout the year and improve speed.

Grade Level	Number of Facts	Allowed Time
Incoming 5 th Graders	60 facts	2 minutes
Incoming 6 th Graders	60 facts	2 minutes
Incoming 7 th Graders	60 facts	1 minute 30 seconds
Incoming 8 th Graders	60 facts	1 minute 30 seconds

We appreciate you partnering with us to help these students maintain their basic math skills while setting themselves up for a productive year in math.

Sincerely,

PBS Math Department

Day 8 Mixed Problem	A DESCRIPTION OF TAXABLE PARTY.	<u>4</u> 2	61	Score		8
1. 6 <u>x 8</u>	2. 7 <u>x 5</u>	3. 5 <u>x 3</u>	4. 9 <u>x 6</u>	5. 12 <u>x 9</u>	6. 4 <u>x 7</u>	
7. 8 <u>x 5</u>	8. 7 <u>x 7</u>	9. 3 <u>x 10</u>	10. 5 <u>x 6</u>	11. 3 <u>x 4</u>	12. 2 <u>x 3</u>	
13. 12 <u>x 4</u>	14. 2 <u>x 9</u>	15. 7 <u>x 6</u>	16. 5 <u>x 5</u>	17. 8 <u>x 1</u>	18. 9 <u>x 8</u>	
19. 7 <u>x 9</u>	20. 6	21. 12 <u>x 11</u>			24. 7 <u>x 5</u>	
25. 9 <u>x 6</u>	26. 4 <u>x 8</u>	27. 7 <u>x 9</u>		29. 6 <u>x 2</u>	30. 8 <u>x 3</u>	
31. 4 <u>x 3</u>	32. 2 <u>x 6</u>	33. 10 <u>x 10</u>			36. 6 <u>x 8</u>	
37. 8 <u>x 8</u>		39. 11 x 7				
		45. 7		47. 4	48. 7	
49. 9	50. 9	51. 8	52. 7	<u>x 9</u> 53. 5		
		<u>x 5</u> 57. 5				
<u>x 2</u>	<u>x 3</u>	<u>x 4</u>	<u>x 4</u>	<u>x 3</u>	<u>x 9</u>	

	ay 82	1	4	2	6	+	32	JE	Time:	do r
	Problems		Name:		:91	naM [core: /60	i i i i i i i i i i i i i i i i i i i	
1. 6 <u>x 5</u>	2	3 <u>x 1</u>			4. 1 <u>x 5</u>				6. 5 <u>x 5</u>	
7. 0 <u>x 3</u>	8	3. 5 <u>x 2</u>			10. 3 <u>x 3</u>		2 <u>x 6</u>		2. 9 <u>x 9</u>	
13. 5 <u>x 4</u>		4. 7 <u>x 4</u>	15. 5 <u>x 12</u>		16. 4 <u>x 8</u>		9 <u>x 1</u>		8. 8 <u>x 3</u>	
19. 8 <u>x 6</u>		0. 9 <u>x 4</u>	21. 2 <u>x 9</u>		22. 5 <u>x 4</u>		4 <u>x 8</u>		24. 7 <u>x 11</u>	
25. 12 <u>x 12</u>		10 <u>x 4</u>	27. 6 <u>x 3</u>		28. 4 <u>x 2</u>		2 <u>x 9</u>		11 <u>x 11</u>	
31. 10 <u>x 8</u>		32. 6 <u>x 9</u>	33. 8 <u>x 1</u>		34. 5 <u>x 3</u>		5. 9 <u>x 4</u>		36. 3 <u>x 3</u>	
37. 4 <u>x 0</u>		3. 7 <u>x 1</u>	39. 11 <u>x 4</u>		40. 8 <u>x 8</u>		1. 8 <u>x 9</u>		12. 6 <u>x 7</u>	
43. 6 <u>x 4</u>		4. 5 <u>x 5</u>	45. 12 <u>x 8</u>		46. 1 <u>x 1</u>					
49. 5 <u>x 6</u>		50. 9 <u>x 9</u>	51. 8 <u>x 5</u>		52. 12 <u>x 2</u>		11 <u>x 3</u>		4. 6 <u>x 3</u>	
55. 8 <u>x 2</u>	5	56. 3 <u>x 9</u>	57. 7 <u>x 5</u>		58. 8 <u>x 4</u>		9 <u>x 7</u>		60. 7 <u>x 7</u>	

🕓 Day 84	64	26	+ 32	Score: Time:	0
Mixed Problems	Name:			/60 :	
	2. 5 3. <u>x 6 x</u>		8 5. 6 5 <u>x 7</u>	6. 2 <u>x 5</u>	
7. 4 8	8. 9 9.	2 10.	8 11. 7	12. 9	
<u>x 3</u>	<u>x 7 x</u>	<u>.7</u> <u>x</u>	<u>3 x4</u>	<u>x 5</u>	
		5 16.		18. 8 <u>x 7</u>	
			4 23. 7 7 <u>x 9</u>	24. 8 <u>x 2</u>	
	. 7 27. <u>x 4 x</u>	9 28. 3 <u>x 1</u>		30. 6 <u>x 4</u>	
	12 33. 1 <u>x 9 x</u>			36. 10 <u>x 3</u>	
	8, 5 39. <u>x 5 x</u>		9 41. 12 5 <u>x 7</u>	42. 10 <u>x 8</u>	
	4. 3 45. <u>x 5 </u> <u>x</u>			48. 6 <u>x 8</u>	
	. 3 51. <u>x 12 x</u>			54. 7 <u>x 3</u>	
	11 57. <u>x 4</u> <u>x</u>				

	ay 86 Problems	<u>4</u> 2 Name:	6	+ 3 Sco	
1. 7	2. 8	3. 2	4. 12		6. 5
<u>x 6</u>	<u>x 3</u>	<u>x 6</u>	<u>x 11</u>		<u>x 8</u>
7. 6	8. 11	9. 8	10. 3	11. 8	12. 8
<u>x 4</u>	<u>x 5</u>	<u>x 9</u>		<u>x 4</u>	<u>x 8</u>
13. 6	14. 8	15. 5	16. 12	17. 5	18. 2
<u>x 9</u>	<u>x 7</u>	<u>x 9</u>	<u>x 12</u>	<u>x 5</u>	<u>x 7</u>
19. 3	20. 3	21. 9	22. 5	23. 10	24. 9
	<u>x 9</u>	<u>x 8</u>	<u>x 4</u>	<u>x 10</u>	<u>x 2</u>
25. 5	26. 6	27. 11 <u>x 3</u>	28. 5 <u>x 2</u>	29. 7 <u>x 7</u>	30. 9 <u>x 4</u>
31. 11	32. 10	33. 6	34. 8	35. 9	36. 1
<u>x 11</u>	<u>x 4</u>	<u>x 5</u>	<u>x 2</u>	<u>x 7</u>	<u>x 8</u>
37. 3	38. 10	39. 3	40. 0	41. 8	42. 9
<u>x 9</u>	<u>x 11</u>	<u>x 7</u>	<u>x 3</u>	<u>x 5</u>	<u>x 9</u>
43. 3	44. 3		46. 12	47. 5	48. 10
<u>x 5</u>	<u>x 3</u>		<u>x 10</u>	<u>x 9</u>	<u>x 8</u>
49, 6	50. 12	51. 4	52. 8		54. 7
<u>x 8</u>	<u>x 3</u>	<u>x 5</u>	<u>x 4</u>		<u>x 3</u>
55. 0	56. 1	57. 4	58. 7	59. 9	60. 4
<u>x 9</u>	<u>x 7</u>	<u>x 4</u>	<u>x 8</u>	<u>x 6</u>	

() Day 88	12	4 2	6+	- 3 - Score	Time: 200
Mixed Problems	Na	me:	lame:	/6	
	2. 5	3. 7		5. 4	
<u>x 6</u>	<u>x 3</u>	<u>x 9</u>	<u>x 8</u>	<u>x 9</u>	<u>x 5</u>
7. 10					-
<u>x 4</u>	<u>x 2</u>	<u>x 4</u>	<u>x 5</u>	<u>x 4</u>	<u>x 7</u>
13. 3 14					
<u>x 3</u>	<u>x 9</u>	<u>x 4</u>	<u>x 8</u>	<u>x 9</u>	<u>x 7</u>
19. 1				23. 8	
<u>x 0</u>	<u>x 4</u>	<u>x 8</u>	<u>x 3</u>	<u>x 6</u>	<u>x 2</u>
25, 12					
<u>x 3</u>				<u>x 12</u>	
	32. 3	33. 6 <u>x 6</u>		35. 12 <u>x 11</u>	36. 5
<u>x 8</u>					
37. 9 x 6	38. 6 <u>x 4</u>	39. 10 <u>x 3</u>	40. 2	41. 5 <u>x 9</u>	42. 6 <u>x 8</u>
43. 10	44. 7 <u>x 5</u>			47. 12 <u>x 7</u>	48. 2 <u>x 6</u>
XU	<u>A O</u>	<u> </u>			
49. 11				53. 10	
<u>x 11</u>	<u>x 9</u>	<u>x 5</u>	<u>x 9</u>	<u>x 3</u>	<u>x 4</u>
55. 8				59. 7	
<u>x 6</u>	<u>x 9</u>	<u>x 5</u>	<u>x 4</u>	<u>x 7</u>	<u>x 8</u>

() Day 9	0 5	4 2	6+	- 3 -1	2700
Mixed Proble	Contraction of the local division of the loc	ame:	2019;	(Score	
1. 5 <u>x 7</u>		3. 1 <u>x 7</u>		5. 8 <u>x 6</u>	
		9. 11 <u>x 11</u>			
13. 5 <u>x 8</u>	14. 9 <u>x 9</u>	15. 8 <u>x 1</u>	16. 4 <u>x 0</u>	17. 7 <u>x 9</u>	
	20. 3 <u>x 4</u>	21. 7 <u>x 3</u>		23. 9 <u>x 8</u>	
		27. 0 <u>x 6</u>			
31. 8 <u>x 7</u>		33. 2 <u>x 8</u>	34. 7 <u>x 6</u>	35. 5 <u>x 5</u>	36. 4 <u>x 3</u>
37. 5 <u>x 6</u>	38. 7 <u>x 7</u>	39. 12 <u>x 6</u>		41. 9 <u>x 6</u>	
43. 6 <u>x 10</u>	44. 3 <u>x 5</u>	45. 3 <u>x 3</u>	46. 1 <u>x 2</u>		
49. 7 <u>x 4</u>		51. 10 <u>x 10</u>		53. 12 <u>x 5</u>	
55. 7 <u>x 2</u>	56. 6 <u>x 4</u>	57. 9 <u>x 7</u>		59. 3 <u>x 2</u>	

() Day 92	4 2	6+	3 Score:	Time: 700
Mixed Problems	Name:	Name:	/60	
1. 10 2. 7	3. 4	4. 9	5. 10	6. 8
<u>x 3</u> <u>x 5</u>	<u>x 8</u>	<u>x 2</u>	<u>x 10</u>	<u>x 7</u>
7. 5 8. 7	9. O	10. 7	11. 2	12. 9
<u>x 3 x 9</u>		<u>x 1</u>	<u>x 4</u>	<u>x 8</u>
13. 5 14. 8	15. 5	16. 3	17. 5	18. 11
<u>x 4</u> <u>x 2</u>		<u>x 4</u>		<u>x 3</u>
19. 9 20. 4	21. 2	22, 5	23. 7	24. 5
<u>x 6 x 4</u>	<u>x 0</u>	<u>x 10</u>	<u>x 4</u>	<u>x 8</u>
25. 8 26. 1				-
<u>x1</u> <u>x4</u>	<u>x 3</u>	<u>x 2</u>	<u>x 2</u>	<u>x 4</u>
31. 11 32. 12				
<u>x1</u> <u>x4</u>	<u>x 5</u>	<u>x 9</u>	<u>x 7</u>	<u>x 8</u>
37. 6 38. 10				120
<u>x 6</u> <u>x 8</u>	<u>x 9</u>	<u>x 3</u>	<u>x 2</u>	<u>x 8</u>
43. 10 44. 9				_
<u>x 10 x 5</u>	<u>x 10</u>	<u>x 12</u>	x9	<u>x 5</u>
49. 4 50. 8				
<u>x 9</u> <u>x 3</u>	<u>x 5</u>	<u>× 4</u>	<u>x 0</u>	<u>x 5</u>
	57. 1			
<u>x 3</u> <u>x 7</u>	<u>x 10</u>	<u>x 4</u>	<u>x 5</u>	<u>x 7</u>

	y 94 roblems		4	2	6	+	3		Time:	700
INIAGU P	TUDICIIIS		Name:	-	1000 C	100	-1	/60)
1. 6 <u>x 6</u>		2. 8 <u>x 7</u>		4 x 5	4. 9 <u>x 9</u>		5. 12 <u>x 7</u>		4 <u>x 6</u>	
7. 7					10. 3					
<u>x 3</u>		<u>x 2</u>			<u>x 3</u>		<u>x 3</u>		<u>x 7</u>	
			15.		16. 3 <u>x 4</u>		17. 5 <u>x 5</u>			
	20.		21.		22. 7 <u>x 4</u>		23. 8 <u>x 8</u>		9 <u>x 7</u>	
25. 10 <u>x 10</u>		6. 6 <u>x 4</u>			28. 9 <u>x 9</u>		29. 7 <u>x 2</u>). 4 <u>x 4</u>	
31. 3 <u>x 2</u>		2. 7		12 x 5	34. 6 <u>x 11</u>				36, 8 <u>x 5</u>	
37. 10 <u>x 9</u>		38. 3 <u>x 8</u>			40. 5 <u>x 11</u>		41. 6 <u>x 6</u>		12 <u>x 2</u>	
43. 7 <u>x 5</u>		4. 9 <u>x 3</u>		4 <u>x 6</u>	46. 10 <u>x 2</u>					
			51.	4 x 5	52. 9 <u>x 8</u>		53. 3 <u>x 3</u>		12 <u>x 3</u>	
			57.	11	58. 3		59. 9		50. 7	
<u>x 6</u>		<u>x 12</u>	<u>x</u>	10	<u>x 4</u>		<u>x 6</u>		<u>x 3</u>	

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Day 96 Mixed Problems	4 2 Name:	6+3	core: /60
1. 12 2. 4 <u>x 5</u> <u>x 3</u>		4. 6 5. 9 <u>x 7 x 3</u>	
7. 3 8. 6 <u>x 5</u> <u>x 4</u>	9. 7 <u>x 6</u>	10. 4 11. 2 <u>x 8 <u>x 12</u></u>	
13. 9 14. 4 <u>x 2</u> <u>x 4</u>	15. 5 <u>x 1</u>	16. 0 17. 5 <u>x 10 <u>x 10</u></u>	18. 4 <u>x 9</u>
19. 8 20. 9 <u>x 7</u> <u>x 8</u>	21. 10 <u>x 10</u>	22. 5 23. 12 <u>x 4</u> <u>x 8</u>	
25. 6 26. 11 <u>x 2</u> <u>x 11</u>		28. 9 29. 2 <u>x 3 x 2</u>	30. 5
31. 9 32. 12 <u>x 9</u> <u>x 4</u>		34. 10 35. 4 <u>x 1</u> <u>x 7</u>	-
	39. 12 <u>x 7</u>	40. 5 41. 7 <u>x 3</u> <u>x 7</u>	
43. 6 44. 9 <u>x 5</u> <u>x 5</u>		46. 12 47. 8 <u>x 3</u> <u><u>x 9</u></u>	48. 10 <u>x 10</u>
49. 6 50. 4 <u>x 2</u> <u>x 3</u>	_	52. 5 53. 9 <u>x 4</u> <u>x 6</u>	
55. 11 56. 9 <u>x 7</u> <u>x 3</u>		58. 7 59. 5 <u>x 1 x 5</u>	

Day Mixed Pro		4 Name:	26	+ 3 50	ore: /60	8
1. 8 <u>x 7</u>	2. 8 <u>x 4</u>	3. 7 <u>x 2</u>	4. 9 <u>x 6</u>	5. 3 <u>x 7</u>	6. 8	
7. 12 <u>x 7</u>	8. 6 <u>x 2</u>	9. 9 <u>x 7</u>	10. 3 <u>x 3</u>	11. 6 <u>x 6</u>	12. 9 <u>x 5</u>	
13. 5 <u>x 4</u>	14. 7 <u>x 0</u>	15. 5 <u>x 6</u>	16. 4 <u>x 4</u>	17. 1 <u>x 0</u>	18. 7 <u>x 4</u>	
19. 10 <u>x 11</u>	20. 3	21. 2 <u>x 9</u>	22. 6 <u>x 4</u>	23. 5 <u>x 5</u>	24. 8 <u>x 2</u>	
25. 8 <u>x 3</u>	26. 0 <u>x 8</u>	27. 9 <u>x 3</u>	28. 5 <u>x 2</u>	29. 2 <u>x 12</u>		
31. 7 <u>x 6</u>	32. 12 <u>x 4</u>	33. 10 <u>x 3</u>	34. 6 <u>x 1</u>	35. 4 <u>x 7</u>	36. 5 <u>x 8</u>	
37. 12 <u>x 9</u>	38. 10 <u>x 8</u>	39, 11 <u>x 7</u>	40. 5 <u>x 3</u>	41. 7 <u>x 5</u>	42. 8 <u>x 2</u>	
43. 3 <u>x 3</u>	44. 4 <u>x 5</u>	45. 8 <u>x 4</u>	46. 12 <u>x 5</u>	47. 9 <u>x 9</u>	48. 1 <u>x 5</u>	
49. 7 <u>x 8</u>	50. 6 <u>x 3</u>	51. 8 <u>x 5</u>		53. 6 <u>x 10</u>	54. 8 <u>x 3</u>	
55. 2 <u>x 5</u>	56. 0 <u>x 3</u>	57. 7 <u>x 10</u>	58. 12 <u>x 8</u>	59. 9 <u>x 3</u>	60. 6 <u>x 7</u>	