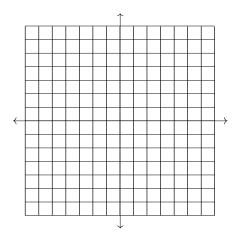
Name \_\_\_\_\_ Algebra 1 - Fall Semester Per/Sec. \_\_\_\_\_ Date \_\_\_\_ Final Exam Review Solve: 12 - 5u < 3u + 13Solve: -2n + 10 - 5n = 171. 21.2.Solve: 22 = 5b + 7(b - 2)22.Solve and graph: 2 > y + 10Solve: 4(y-9) - 10y = 023.Solve and graph:  $-24 \ge 8c$ 3. Solve: 5x - 6 = 8x + 6Solve:  $-5 < 2y - 3 \le 23$ 24.4. Solve: 5x + 2 = 7x - 25.25.Solve:  $13 \le 4x + 1 \le 29$ 6. Solve: 3 - 2r + 8 = 6r + 11 - 8rSolve and graph:  $9 + 2u \ge 15$  or 3 - 4u > -126.Solve: 8d + 5 - 3d = 2 + 5d + 37. 27.Solve and graph:  $5w + 3 \le 13$  or  $6 - 7w \le -15$ Solve: 9 + 3x + 12 = 8x - 9 - 5x8. Solve and graph:  $|6 - n| \ge 5$ 28.Solve: -2(5-8d) = 4(7+4d)9. 29.Solve and graph:  $|3 - 5u| \ge 33$ Solve: |3z - 12| = 610. 30.Solve and graph:  $|5k - 4| \le 6$ 11. Solve: |5h+8| = 331. Solve and graph:  $|2p-7| \leq 13$ Solve for y: 3y - b = y + d12.Consider the function f(x) = -3x - 5. What 32.is f(-6)? 13.Solve for x: 5x - 2b = x - cConsider the function h(x) = (x - 1)(x + 1). 33.14. Solve for P in the equation A = P + Prt. What is h(8)? 15.Solve for I in the equation E = Ir + IR. Consider the function  $g(x) = x^2 - 4x + 8$ . What 34.is g(5)? Solve:  $3k + 8 \ge 17$ 16.35. Consider the function  $f(x) = x^3 + x^2 + x$ . What Solve: 5p - 2 < -2717.is f(-3)? 18. Is w = 7 a solution to  $4w - 17 \ge 3$ ? 36. What is the *x*-intercept of the line -3x + 8y - 24 = 0?19. Is c = 0 a solution to 3 + 7c < -17?37. What is the *x*-intercept of the line 5x - 7y + 35 = 0?20. Solve: 2n - 11 > 3n + 5

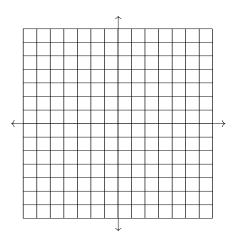
38. Graph a line with following intercepts:

## x-intercept = 2, y-intercept = 5



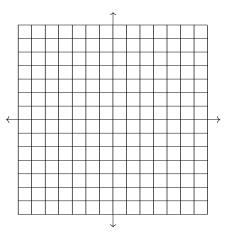
39. Graph a line with the following intercepts:

x-intercept = -1, y-intercept = -5

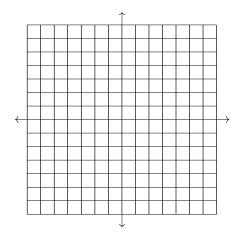


- 40. Find the slope of the line containing the points: (-2,4) (-2,8)
- 41. Find the slope of the line containing the points: (-3,6) (-3,0)
- 42. Find the slope of the line containing the points: (6, -8) (-2, 6)
- 43. Find the slope of the line containing the points: (-3, -3) (-9, 7)

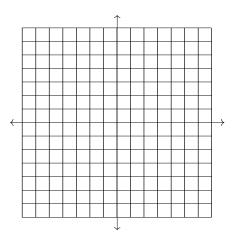
- 44. Find the slope of the line containing the points: (2, -8) (3, -8)
- 45. Find the slope of the line containing the points: (7, -5) (2, -5)
- 46. Graph the line of the equation  $y = \frac{1}{5}x 5$ .



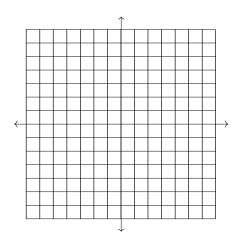
47. Graph the line of the equation  $y = \frac{5}{2}x + 4$ . Plot points on the grid and not off the grid.



48. Graph the equation 2x + 7y = 21.

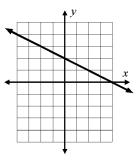


49. Graph the equation 6x + 5y = 30.

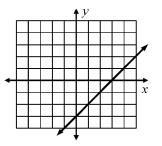


- 50. Write the equation of the line passing through the points (0, -3) and (-4, -5).
- 51. Write the equation of the line passing through the points (9,1) and (0,-2).
- 52. Write a linear function f with the values f(0) = 4 and f(10) = -8.
- 53. Write a linear function f with the values f(-6) = 2 and f(0) = 6.
- 54. Find the equation of the line with a slope of  $-\frac{1}{4}$  that contains the point (4, -2).

- 55. Find the equation of the line with a slope of  $\frac{1}{2}$  and contains the point (-8, 0).
- 56. Write the equation of the line passing through the points (-1, 7) and (3, -9).
- 57. Write the equation of the line passing through the points (-5, 8) and (-3, 0).
- 58. Write the equation of the line in point-slope form that pases through the points (6, -5) and (-2, 7)
- 59. Write the equation of the line in point-slope form that passes through the points (12,7) and (-6,-8).
- 60. What is the equation of the line shown on the graph?



61. What is the equation of the line shown on the graph?



- 62. What is the slope of all lines parallel to -10x 8y = 2?
- 63. What is the slope of all lines parallel to x + 4y = -6?

- 64. What is the slope of all lines perpendicular to -3x y = 9?
- 65. What is the slope of all lines perpendicular to -15x + 9y = 3?
- 66. Determine f(2), f(3), and f(4) for the function below.

 $f(x) = \begin{cases} 2x-1, & \text{if } x \leq 3\\ 3x-4, & \text{if } x > 3 \end{cases}$ 

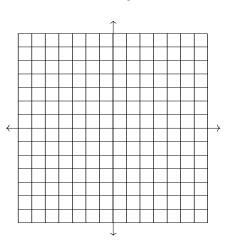
67. Determine f(0), f(1), and f(2) for the function below.

$$f(x) = \begin{cases} 10 - 7x, & \text{if } x < 1\\ 8x - 5, & \text{if } x \ge 1 \end{cases}$$

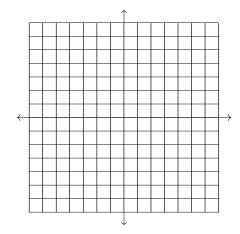
68. Which of these systems has (-5, 2) as a solution?

I. 
$$2x + 2y = 6$$
  
 $15 - 3x = 6 + 5y$   
II.  $8x + 20 = 10y$   
 $3x - y = -17$   
III.  $4y - 2x = 18$   
 $5x = 1 - 13y$ 

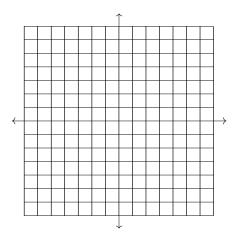
69. Solve by graphing: 
$$y = -x - 2$$
  
 $y = -3x + 4$ 



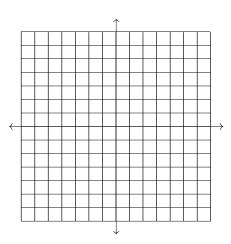
70. Solve by graphing: y = 2x + 6y = x + 4



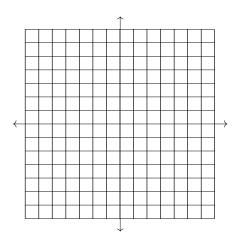
71. Solve by graphing: -x + y - 2 = 03x - y = 0



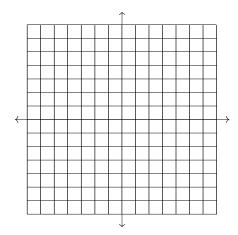
72. Solve by graphing: -x + y = -63x + y = 2



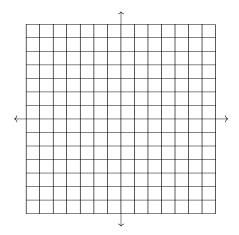
73. Solve by graphing: y = 2x - 2y = 2x + 2



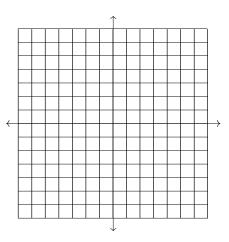
74. Solve by graphing: y = -3x + 1y = -3x + 7



75. Solve by graphing: 10x + 2y + 2 = 05x + y + 1 = 0



76. Solve by graphing: 6x - 3y = -6-2x + y = 2



- 77. Solve by substitution: x = 2y + 182y - 10x = 0
- 78. Solve by substitution: 8x = 4 + yy = 7x - 2
- 79. Solve by substitution: y = 1 6xy = -6x - 3
- 80. Solve by substitution: y = -3x + 1y = 7 - 3x
- 81. Solve by substitution: 6x 3y = -6-2x + y = 2
- 82. Solve by substitution: -2x 12y = -6x + 6y = 3
- 83. Solve by elimination: -3x 9y + 6 03x + 5y - 14 = 0
- 84. Solve by elimination: 5x 3y 2 = 0-4x + 3y - 2 = 0
- 85. Solve by elimination: 2x + 4y = 143x - y = 14

- 86. Solve by elimination: -3x + y = -35x - 2y = 10
- 87. Solve by elimination: -2x 7y = 73x + 10y = -8
- 88. Solve by elimination: 3x + 4y + 1 = 0-5x - 9y + 17 = 0
- 89. Solve the system: 2x 3y 1 = 0-8x + 12y - 4 = 0
- 90. Solve the system: 12x 10y = 0-6x + 5y = 2
- 91. Solve the system: x + y = 43x + 3y = 12
- 92. Solve the system: 2x 4y = 6x - 2y = 3
- 93. Determine which of the following ordered pairs are solutions to this inequality:  $2y 3x \ge 6$ 
  - I. (-4,3)II. (1,-1)III. (2,4)IV. (3,0)
- 94. Graph the inequality and determine which of the points are solutions.

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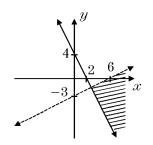
 $y \le -2x - 2$ 

- 95. Graph the inequality and determine which of the points are solutions.
  - $3x + 6y \le 12$

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96. Graph the inequality  $3x + 2y \le 6$ 

- 97. Graph the inequality 4x 5y > 20.
- 98. Graph the inequality  $x \leq 2$ .
- 99. Graph the inequality y > 3
- 100. Write a system of inequalities for the graph.



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1.		14.	4
Answer:	-1	Answer:	$\frac{A}{1+rt}$
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3.		16.	
Answer:	-6	Answer:	
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4.		17.	
Answer:	-4	Answer:	
CodePath:	ALG.GF.28	CodePath:	ALG.OA.122
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8.		Answer:	
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9.		Answer:	y < -8
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10.		23.	
Answer:	2,6	Answer:	$c \leq -3$
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11.		-6 $-5$ CodePath:	$^{-4}$ $^{-3}$ $^{-2}$ $^{-1}$ ALG.OA.52
Answer:	$-1, -\frac{11}{5}$	24.	1110.011.02
CodePath:	ALG.OD.67	Answer:	$-1 < y \le 13$
12.		CodePath:	ALG.OC.45
Answer:	$\frac{b+d}{2}$	25.	
CodePath:	$\operatorname{ALG.GH.49}^{2}$	Answer:	$3 \le x \le 7$
13.		CodePath:	ALG.OC.46
Answer:	$\frac{2b-c}{4}$	26.	
CodePath:	$\overline{\mathrm{ALG.GH.50}}$	Answer:	$u < 1$ or $u \geq 3$
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			1  2  3  4  5
		CodePath:	ALG.OC.49

27. $w \leq 2$  or  $w \geq 3$ Answer: 2 1 CodePath: ALG.OC.50 28. $n \leq 1 \quad \text{or} \quad n \geq 11$ Answer: 5 7 9 11 3 CodePath: ALG.OE.63 29. $u \geq \frac{36}{5}$  or  $u \leq -6$ Answer: ALG.OE.84 CodePath: 30.  $-\frac{2}{5} \le k \le 2$ Answer: -2 -1 0 1 2 3CodePath: ALG.OE.78 31.Solve:  $-3 \le p \le 10$ Answer: -4 -3 -2 -1 0 1 2 3 45 9 10 11 6 7 8 CodePath: ALG.OE.83 32.Answer: 13CodePath: ALG.DA.10 33. Answer: 63CodePath: ALG.DA.35 34. Answer: 13CodePath: ALG.DA.37 35.-21Answer: CodePath: ALG.DA.38 36. Answer: -8ALG.PE.94 CodePath: 37. Answer: -7CodePath: ALG.PE.95 38.Line passes through (2,0) & (0,5). Answer: CodePath: ALG.PF.73

39. Line passes through (-1,0) & Answer: (0, -5).ALG.PF.76 CodePath: 40. undefined Answer: CodePath: ALG.PA.43 41. Answer: undefined CodePath: ALG.PA.20 42. $-\frac{7}{4}$ Answer: CodePath: ALG.PA.16 43. $-\frac{5}{3}$ Answer: CodePath: ALG.PA.34 44. Answer: 0 CodePath: ALG.PA.21 45. Answer: 0 CodePath: ALG.PA.40 46. Line passes through (0, -5) and Answer: (5, -4).CodePath: ALG.PE.27 47. Line passes through (0, 4) and Answer: (-2, -1).CodePath: ALG.PE.26 48. Line passes through (0,3) and Answer: (7, 1).CodePath: ALG.PE.89 49. Line passes through (0, 6) and Answer: (5, 0).ALG.PE.93 CodePath: 50.  $y = \frac{1}{2}x - 3$ Answer: CodePath: ALG.PF.71 51. $y = \frac{1}{3}x - 2$ Answer: ALG.PF.72 CodePath: 52. $y = -\frac{6}{5}x + 4$ Answer: ALG.PF.69 CodePath:

53. $y = \frac{2}{3}x + 6$ Answer: ALG.PF.70 CodePath: 54. $y = -\frac{1}{4}x - 1$ Answer: ALG.PF.25 CodePath: 55. $y = \frac{1}{2}x + 4$ Answer: ALG.PF.26 CodePath: 56.Answer: y = -4x + 3CodePath: ALG.PF.10557.Answer: y = -4x - 12**ALG.PF.107** CodePath: 58. $y + 5 = -\frac{3}{2}(x - 6)$ Answer: ALG.PF.113 CodePath: 59. $y - 7 = \frac{5}{6}(x - 12)$ Answer: ALG.PF.114 CodePath: 60.  $y = -\frac{1}{2}x + 2$ Answer: TX7.IB.23 CodePath: 61. y = x - 3Answer: CodePath: TX7.IB.24 62.  $-\frac{5}{4}$ Answer: CodePath: ALG.PH.19 63.  $-\frac{1}{4}$ Answer: ALG.PH.20 CodePath: 64. Answer: ALG.PH.21 CodePath: 65.  $-\frac{3}{5}$ Answer: ALG.PH.24 CodePath: 66. f(2) = 3, f(3) = 5, f(4) = 8Answer: CodePath: TRI.HF.25 67. f(0) = 10, f(1) = 3, f(2) = 11Answer: TRI.HF.26 CodePath:

68. Answer: III only CodePath: MMA.IG.14 69. (3, -5)Answer: CodePath: ALG.QA.87 70. Answer: (-2, 2)CodePath: ALG.QA.88 71. Answer: (1, 3)CodePath: ALG.QA.126 72. Answer: (2, -4)CodePath: ALG.QA.145 73. no solution Answer: CodePath: ALG.QA.91 74. Answer: no solution CodePath: ALG.QA.92 75. Answer: infinitely many solutions CodePath: ALG.QA.165 76. Answer: infinitely many solutions CodePath: **ALG.QA.167** 77. (-2, -10)Answer: CodePath: ALG.QB.148 78. Answer: (2, 12)CodePath: ALG.QB.149 79. Answer: no solution CodePath: ALG.QA.89 80. Answer: no solution CodePath: ALG.QA.92 81. infinitely many solutions Answer: ALG.QA.167 CodePath: 82. Answer: infinitely many solutions CodePath: **ALG.QA.168** 

83. Answer: CodePath:	$egin{array}{l} (8,-2) \ { m ALG.QB.9} \end{array}$	96. Answer:	
84. Answer: CodePath:	(4,6)ALG.QB.11		
85. Answer: CodePath:	(5,1)ALG.QB.13	CodePath: 97. Answer:	MMA.IG.47
86. Answer: CodePath:	(-4, -15)ALG.QB.15		5,
87. Answer: CodePath:	(14, -5)ALG.QB.37	CodePath:	-4 MMA.IG.55
88. Answer: CodePath:	(-11,8)ALG.QB.38	98. Answer:	WIMA.IG.55
89. Answer: CodePath:	no solution ALG.QB.49		
90. Answer: CodePath:	no solution ALG.QB.52	CodePath: 99.	MMA.IG.52
91. Answer: CodePath:	infinitely many solutions ALG.QB.25	Answer:	
92. Answer: CodePath:	infinitely many solutions ALG.QB.26	CodePath:	MMA.IG.54
93. Answer: CodePath:	I only CM2.DH.4	100. Answer:	x-2y>6 $2x+y\geq 4$
94. Answer: CodePath:	A and B only CM2.DH.10	CodePath:	MMA.IG.69
95. Answer: CodePath:	A, B, C, and D CM2.DH.14		