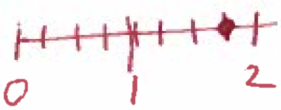
M04W 83 Aleks Step

05-28-18

Page 1

1. 0.2345×1000
2. $2.8765 \div 100$
3. 2587.913 write in scientific notation
4. .00005678 write in scientific notation
5. $2[2+(8+10)\div 2]$
6. $10+2\cdot 5^2$
7. $\frac{17}{4}$ write as mixed #
8. $10+12\div 2+4\cdot 7$
9. $-x+2y$, $x=3, y=-3$
10. $(-5)^2-3^2$
11. $\frac{8}{3}\div\frac{4}{9}$
12. $\frac{24}{50}$ simplify
13. $|-8+2|-10$
14. 48 and 60 find GCF
15. 48% as fraction simplified
16. $\frac{3}{8}-\frac{3}{10}$
17. $-\frac{2}{5}\left(\frac{-3}{7}\right)$
18. 15.25% as decimal
19. 48% as fraction simplified
20. (4, 2) and (−8, −4) find slope
21. $\frac{1}{10}-\frac{1}{3}\div\frac{2}{3}$
22. $\frac{1}{18}+\frac{2}{3}\cdot\frac{2}{3}$
23. $y=-2x^2-3x+1$, $x=-4$
24. $2x+3y=6$ find x and y intercepts
25. $\sqrt[3]{64}$
26. $\sqrt{75}$
27. $\sqrt{-16}$
28. $\sqrt{-20}$
29. $-5\sqrt{-12}$
30. $\left(\frac{1}{8}\right)^{-\frac{4}{3}}$
31. $\left(\frac{2}{3}\right)^{-2}$
32. $\frac{3}{-4}+\frac{-1}{6}$
33. 

name dot

34. $5+2x=-11$
35. $\frac{3}{20}=\frac{x}{100}$
36. $-3x-7=8(x-5)$
37. $\frac{3}{5}x=60$
38. $2x+1=4x+1$
39. $2(x+5)=2x+10$
40. $x+2y=60$ y =
41. $4x+2y=6$ y =
42. $3x+2y=10$ Find slope & y-intercept
43. $2(x+1)+4x=3(x+2)$
44. $x+2y=10$ y =
45. $A=4B+5C$ C =
46. $\frac{a}{3}=c$ a =
47. $y-3=x$ y =
48. $\sqrt{6x-4}=\sqrt{8x-16}$

49. $-2x \le 8$

50. $-2x - 8x$

51. $-3(2x-3y-5)$

52. $(-2x^2-3x-7)-(4x^2-9x+1)$

53. $(x^2)^2$

54. $(x^3)^{-3}$

55. $(8x)^2$

56. $x \cdot x^2 \cdot x^{10}$

57. $-2x^3y^4 \cdot 4x^3 \cdot 2y^5$

58. $2x^3(1-5x^8)$

59. $(4a-5b-6)(2a-3b)$

60. $(x+3)(x^2-8x-3)$

61. $(2x-3)(3x^2+2x-5)$

62. $(3x+7)(3x-7)$

63. $(3x-5y)^2$

64. $(3x+7)(2x-5)$

65. $(2x^3y^4)(-3xy^5)$

66. $4x^2y(2xy-3x^2y)$

67. $(-2x^3y)^4$

68. $\dfrac{15x^8y^7}{6x^2y^{10}}$

69. $\left(\dfrac{4x^3y^2}{3z^5}\right)^2$

70. $\sqrt{x+1} = 3$

71. $(x+1)^2 = 9$

72. $-2x(x-5)=0$

73. $(2x+5)(7-x)=0$

74. $x^2+8x-20=0$

75. $x^2-11x=-28$

76. $5x^2+11x+2=0$

77. $y=4$ graph

78. $y=-2x+6$ graph

79. $y=-\frac{3}{2}x+1$ graph

80. $2x+3y=6$ graph

81. $x+y=3$
$x-y=1$

82. $x+y=3$
$x=2y$

83. $\dfrac{2a+3b}{2x} - \dfrac{5a-8b}{2x}$

1. $0.2345 * 1000 =$

$234.5 =$

2. $2.8765 \div 100 =$

$.028765 =$

3. $2587.913 =$

$2.587913 * 10^{3} =$

4. $.00005678 =$

$5.678 * 10^{-5} =$

5. $2[2 + (8+10) \div 2] =$

$2[2 + (18) \div 2] =$

$2[2 + 9] =$

$2[11] =$

$22 =$

6. $10 + 2.5^{2} =$

$10 + 2(5)(5) =$

$10 + 2(25) =$

$10 + 50 =$

$60 =$

7. $\frac{17}{4} =$

$4\overline{)17}$ → $4\ 1/4$, $-(16)$, 1 R

$4\frac{1}{4} =$

Change to mixed number

(4)

8. $10 + 12 \div 2 + 4 \cdot 7 =$

$10 + 6 + 4 \cdot 7 =$

$10 + 6 + 28 =$

$16 + 28 =$

$44 =$

9. $-x + 2y, \quad x = 3, \ y = -3$

$-(3) + 2(-3) =$

$-3 - 6 =$

$-9 =$

10. $(-5)^2 - 3^2 =$

$(-5)(-5) - (3)(3) =$

$(25) - (9) =$

$25 - 9 =$

$16 =$

11. $\frac{8}{3} \div \frac{4}{9} =$

$\frac{8}{3} \cdot \frac{9}{4} =$ Rewrite

$\frac{(2)(2)(2)}{(3)} \cdot \frac{(3)(3)}{(2)(2)} =$

$\frac{(2)(2)(2)}{(3)} \cdot \frac{(3)(3)}{(2)(2)} =$

$6 =$

12. $\frac{24}{50}$ Prime 2, 3, 5, 7...

$\frac{(2)(2)(2)(3)}{(2)(5)(5)} =$

2|24
2|12
2|6
3|3
1

2|50
5|25
5|5
1

$\frac{12}{25} =$

13. $|-8+2|-10 =$

$|-6|-10 =$

$(6)-10 =$

$6-10 =$

$-4 =$

14. 48 and 60 find GCF Primes 2, 3, 5, 7...

$48 = 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$

$60 = 2 \cdot 2 \cdot 3 \cdot 5$

$GCF = 2 \cdot 2 \cdot 3$

$= 12$

2 | 48	2 | 60
2 | 24	2 | 30
2 | 12	3 | 15
2 | 6	5 | 5
3 | 3	1
1	

(c)

15. 48/100 as fraction Simplify

Prime 2, 3, 5, 7...

$\frac{48}{100} =$

$\frac{(2)(2)(2)(2)(3)}{(2)(2)(5)(5)} =$

$\frac{12}{25} =$

2 | 48	2 | 100
2 | 24	2 | 50
2 | 12	5 | 25
2 | 6	5 | 5
3 | 3	1
1	

16. $\frac{3}{8} - \frac{3}{10} =$

LCD = 40

$\frac{3}{8}\left(\frac{5}{5}\right) - \frac{3}{10}\left(\frac{4}{4}\right) =$

$\frac{15}{40} - \frac{12}{40} =$

$\frac{15-12}{40} =$

$\frac{3}{40}$

17. $-\frac{2}{5}\left(\frac{-3}{7}\right) =$

$\frac{6}{35} =$

18. 15.25% as decimal

$.1525 =$

19. 48% as fraction simplified

$\frac{48}{100}$

Primes 2, 3, 5, 7 ...

2 | 48	2 | 100
2 | 24	2 | 50
2 | 12	5 | 25
2 | 6	5 | 5
3 | 3	1
1	

$\frac{(2)(2)(2)(2)(3)}{(2)(2)(5)(5)} =$

$\frac{12}{25} =$

20. $(4, 2)$ and $(-8, -4)$ find slope

x_1, y_1 $\quad x_2, y_2$

$m = \frac{y_1 - y_2}{x_1 - x_2}$ slope formula

$m = \frac{(2) - (-4)}{(4) - (-8)}$

$m = \frac{2+4}{4+8}$

$m = \frac{6}{12}$

$m = \frac{(2)(3)}{(4)(2)(3)}$

$m = \frac{1}{2}$

21

$\frac{1}{10} - \frac{1}{3} \div \frac{2}{3} =$

$\frac{1}{10} - \frac{1}{3} \cdot \frac{3}{2} =$ Rewrite

$\frac{1}{10} - \frac{1}{2} =$ LCD = 10

$\frac{1}{10} - \frac{1}{2}\left(\frac{5}{5}\right) =$

$\frac{1}{10} - \frac{5}{10} =$

$\frac{1-5}{10} =$

$\frac{-4}{10} =$

$\frac{-2(2)}{(2)(5)} =$

$\frac{-2}{5} =$

8.

(22)

$\frac{1}{18} + \frac{2}{3} \cdot \frac{2}{3} =$

$\frac{1}{18} + \frac{4}{9} =$

LCD = 18

$\frac{1}{18} + \frac{4}{9}\left(\frac{2}{2}\right) =$

$\frac{1}{18} + \frac{8}{18} =$

$\frac{1+8}{18} =$

$\frac{9}{18} =$

$\frac{(3)(3)}{(2)(3)(3)} =$

$\frac{1}{2} =$

23. $y = -2x^2 - 3x + 1$, $x = -4$

$y = -2(-4)^2 - 3(-4) + 1$

$y = -2(-4)(-4) - 3(-4) + 1$

$y = -2(16) - 3(-4) + 1$

$y = -32 + 12 + 1$

$y = -20 + 1$

$y = -19$

24. $2x + 3y = 6$ find x and y-intercepts

find x-int, let $y = 0$

$2x + 3(0) = 6$

$2x + 0 = 6$

$2x = 6$

$\frac{2x}{2} = \frac{6}{2}$

$x = 3$

x-intercept

$(3, 0)$

find y-int, let $x = 0$

$2x + 3y = 6$

$2(0) + 3y = 6$

$0 + 3y = 6$

$3y = 6$

$\frac{3y}{3} = \frac{6}{3}$

$y = 2$

y-intercept

$(0, 2)$

(25) $\sqrt[3]{64} =$

$\sqrt[3]{4^3} =$

$4^{3/3} =$ divide power

$4^1 =$

$4 =$

(26) $\sqrt{75}$ Prime 2, 3, 5, 7...

$\sqrt{5^2 \cdot 3} =$

3 | 75
5 | 25
5 | 5
1

$5^{2/2}\sqrt{3} =$

$5^1\sqrt{3} =$

$5\sqrt{3}$

(27) $\sqrt{-16} =$

$4i =$

Formula	Example
$\sqrt{-1} = i$	
$\sqrt{-4} = 2i$	
$\sqrt{-9} = 3i$	
$\sqrt{-16} = 4i$	
$\sqrt{-25} = 5i$	
$\sqrt{-36} = 6i$	

(28) $\sqrt{-20} =$ Prime 2, 3, 5, 7..

$\sqrt{-4 \cdot 5} =$

$\sqrt{-4}\sqrt{5} =$

$2i\sqrt{5} =$

2	20
2	10
5	5
	1

Formula (12)

$\sqrt{-1} = i$

$\sqrt{-4} = 2i$

$\sqrt{-9} = 3i$

$\sqrt{-16} = 4i$

$\sqrt{-25} = 5i$

⋮

(29) $-5\sqrt{-12} =$ Prime 2, 3, 5, 7..

$-5\sqrt{-4 \cdot 3} =$

$-5\sqrt{-4}\sqrt{3} =$

$-5(2i)\sqrt{3} =$

$-10i\sqrt{3}$

2	12
2	6
3	3
	1

Formula

$\sqrt{-1} = i$

$\sqrt{-4} = 2i$

$\sqrt{-9} = 3i$

$\sqrt{-16} = 4i$

$\sqrt{-25} = 5i$

⋮

(30) $\left(\frac{1}{8}\right)^{-4/3} =$

$\left(\frac{1}{2^3}\right)^{-4/3} =$ Rewrite

$\left(2^{-3}\right)^{-4/3} =$

$2^{(-3/1)(-4/3)} =$

$2^{\frac{12}{3}} =$

$2^4 =$

$2 \cdot 2 \cdot 2 \cdot 2 =$

$16 =$

31. $\left(\frac{2}{3}\right)^{-2} =$

$\left(\frac{2^1}{3^1}\right)^{-2} =$

$\frac{2^{1(-2)}}{3^{1(-2)}} =$

$\frac{2^{-2}}{3^{-2}} =$

$\frac{3^2}{2^2} =$ rewrite

$\frac{(3)(3)}{(2)(2)} =$

$\frac{9}{4} =$

(32) $\frac{3}{4} + \frac{-1}{6} =$

LCD = 12

$\frac{-3}{4} + \frac{-1}{6} =$

$\frac{-3}{4}\left(\frac{3}{3}\right) + \frac{-1}{6}\left(\frac{2}{2}\right) =$

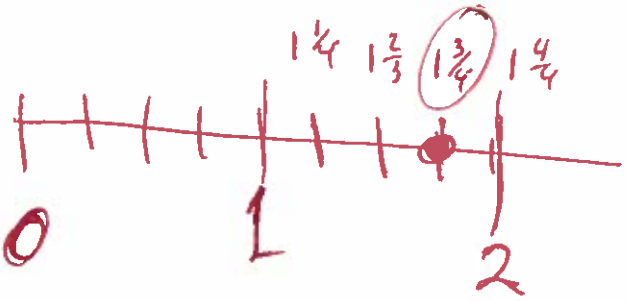
$\frac{-9}{12} + \frac{-2}{12} =$

$\frac{(-9)+(-2)}{12} =$

$\frac{-9-2}{12} =$

$\frac{-11}{12} =$

(33)



$1\frac{3}{4} =$

34. $5+2x=-11$

$5+2x-5=-11-5$

$2x=-16$

$\frac{2x}{2}=\frac{-16}{2}$

$x=-8$

35. $\frac{3}{20}=\frac{x}{100}$

$3(100)=20(x)$ (cross mult

$300=20x$

$\frac{300}{20}=\frac{20x}{20}$

$15=x$

$20\overline{)300}$ → 15

$-(20)$

100

100

0 rm

36. $-3x-7=8(x-5)$

$-3x-7=8x-40$

$-3x-7+7=8x-40+7$

$-3x=8x-33$

$-3x-8x=8x-33-8x$

$-11x=-33$

$\frac{-11x}{-11}=\frac{-33}{-11}$

$x=3$

37. $\frac{3}{5}x = 60$

mult by $\frac{5}{3}$

$\frac{5}{3}\left(\frac{3}{5}x\right) = \frac{5}{3}(60)$

$x = \frac{5}{3}\left(\frac{60}{1}\right)$

$x = \frac{300}{3}$

$x = 100$

$3\overline{)300}$ → 100, (3), 00, 00

38. $2x+1 = 4x+1$

$2x+1-x = 4x+1-x$

$2x = 4x$

$2x-4x = 4x-4x$

$-2x = 0$

$\frac{-2x}{-2} = \frac{0}{-2}$

$x = 0$

(39) $2(x+5) = 2x+10$

$2x+10 = 2x+10$

$2x+10-10 = 2x+10-10$

$2x = 2x$

$2x-2x = 2x-2x$

$0 = 0$

the solution is all real numbers

(40) $x+2y = 60$ $\quad y =$

$x+2y-x = 60-x$

$2y = 60-x$

$\frac{2y}{2} = \frac{60-x}{2}$

$y = \frac{60-x}{2}$

$y = \frac{60}{2} - \frac{x}{2}$

$y = 30 - \frac{x}{2}$

$y = 30 - \frac{1x}{2}$

OR

$y = -\frac{1}{2}x + 30$

(41.) $4x+2y=6$ $y=$

$4x+2y-4x=6-4x$

$2y=6-4x$

$\frac{2y}{2}=\frac{6}{2}-\frac{4x}{2}$

$y=3-2x$

OR

$y=-2x+3$

(42.) $3x+2y=10$ Find slope and y-intercept

$3x+2y-3x=10-3x$

$2y=10-3x$

$\frac{2y}{2}=\frac{10}{2}-\frac{3x}{2}$

$y=5-\frac{3}{2}x$

OR

$y=-\frac{3}{2}x+5$

formula

$y=mx+b$

Slope = m y-intercept

Slope $=m=-\frac{3}{2}$ ✓

y-intercept $=5$ ✓

OR

$(0,5)$ ✓

43. $2(x+1) + 4x = 3(x+2)$

$2x+2+4x = 3x+6$

$6x+2 = 3x+6$

$6x+2-2 = 3x+6-2$

$6x = 3x+4$

$6x-3x = 3x+4-3x$

$3x = 4$

$\frac{3x}{3} = \frac{4}{3}$

$x = \frac{4}{3}$

44. $x+2y = 10$

$x+2y-x = 10-x$

$2y = 10-x$

$\frac{2y}{2} = \frac{10}{2} - \frac{x}{2}$

$y = 5 - \frac{1x}{2}$

OR

$y = -\frac{1}{2}x+5$

$y =$

45 $A = 4B + 5C$ $C =$

$A - 4B = 4B + 5C - 4B$

$A - 4B = 5C$

$\frac{A-4B}{5} = \frac{5C}{5}$

$\frac{A-4B}{5} = C$ OR $\frac{A}{5} - \frac{4B}{5} = C$

46 $\frac{a}{3} = c$ $a =$

$3\left(\frac{a}{3}\right) = 3(c)$

$a = 3c$

47 $y - 3 = x$ $y =$

$y - 3 + 3 = x + 3$

$y = x + 3$

48) $\sqrt{6x-4} = \sqrt{8x-16}$

$(\sqrt{6x-4})^2 = (\sqrt{8x-16})^2$

$6x-4 = 8x-16$

$6x-4+4 = 8x-16+4$

$6x = 8x-12$

$6x-8x = 8x-12-8x$

$-2x = -12$

$\frac{-2x}{-2} = \frac{-12}{-2}$

$x = 6$ ✓

Check

$\sqrt{6x-4} = \sqrt{8x-16}$ Subst $x=6$

$\sqrt{6(6)-4} = \sqrt{8(6)-16}$

$\sqrt{36-4} = \sqrt{48-16}$

$\sqrt{32} = \sqrt{32}$ ✓

Good

49. $-2x \leq 8$

$\frac{-2x}{-2} \geq \frac{8}{-2}$ divide by negative and turn all signs around

$x \geq -4$

$[-4, \infty)$

50. $-2x - 8x =$

$-10x$

51. $-3(2x - 3y - 5) =$

$-6x + 9y + 15 =$

52. $(-2x^2 - 3x - 7) - (4x^2 - 9x + 1) =$

$-2x^2 - 3x - 7 - 4x^2 + 9x - 1 =$

$-6x^2 + 6x - 8 =$

53 $(x^2)^2 =$

$x^{(2)(2)} =$

$x^4 =$

54 $(x^3)^{-3} =$

$x^{(3)(-3)} =$

$x^{-9} =$ OR $\frac{1}{x^9}$ Kevrik

55 $(8x)^2 =$

$(8x)(8x) =$

$(8x^1)(8x^1) =$

$64x^{1+1} =$

$64x^2 =$

56) $x \cdot x^2 \cdot x^{10} =$

$x^1 \cdot x^2 \cdot x^{10} =$

$x^{1+2+10} =$

$x^{13} =$

57) $-2x^3y^4 \cdot 4x^3 \cdot 2y^5 =$

$(-2)(4)(2)\, x^{3+3}\, y^{4+5} =$

$-16x^6y^9 =$

58) $2x^3(1-5x^8) =$

$2x^3 - 10x^{3+8} =$

$2x^3 - 10x^{11} =$

59) $(4a-5b-6)(2a-3b) =$

$8a^2 - 12ab - 10ab + 15b^2 - 12a + 18b =$

$8a^2 + 15b^2 - 22ab - 12a + 18b =$

60. $(x+3)(x^2-8x-3)=$

$x^3-8x^2-3x+3x^2-24x-9=$

$x^3-5x^2-27x-9=$

61. $(2x-3)(3x^2+2x-5)=$

$6x^3+4x^2-10x-9x^2-6x+15=$

$6x^3-5x^2-16x+15=$

62. $(3x+7)(3x-7)=$

$9x^2-21x+21x-49=$

$9x^2-49=$

63. $(3x-5y)^2=$

$(3x-5y)(3x-5y)=$

$9x^2-15xy-15xy+25y^2=$

$9x^2-30xy+25y^2=$

64. $(3x+7)(2x-5) =$

$6x^2 - 15x + 14x - 35 =$

$6x^2 - 1x - 35 =$

$6x^2 - x - 35 =$

65. $(2x^3y^4)(-3xy^5) =$

$(2x^3y^4)(-3x^1y^5) =$

$-6x^{3+1}y^{4+5} =$

$-6x^4y^9 =$

66. $4x^2y(2xy - 3x^2y) =$

$4x^2y^1(2x^1y^1 - 3x^2y^1) =$

$8x^{2+1}y^{1+1} - 12x^{2+2}y^{1+1} =$

$8x^3y^2 - 12x^4y^2 =$

67. $(-2x^3y)^4 =$

$((-2)^1 x^3 y^1)^4 =$

$(-2)^{1(4)} x^{3(4)} y^{1(4)} =$ rewrite

$(-2)^4 x^{12} y^4 =$

$(-2)(-2)(-2)(-2)\, x^{12} y^4 =$

$16x^{12}y^4 =$

68. $\dfrac{15x^8y^7}{6x^2y^{10}} =$

$\dfrac{(3)(5)\, x^{8-2}}{(2)(3)\, y^{10-7}} =$ rewrite

$\dfrac{5x^6}{2y^3} =$

69. $\left(\frac{4x^3y^2}{3z^5}\right)^2 =$

$\left(\frac{4^1x^3y^2}{3^1z^5}\right)^2 =$

$\frac{4^{1(2)}x^{3(2)}y^{2(2)}}{3^{1(2)}z^{5(2)}} =$

$\frac{4^2x^6y^4}{3^2z^{10}} =$

$\frac{(4)(4)x^6y^4}{(3)(3)z^{10}} =$

$\frac{16x^6y^4}{9z^{10}} =$

70) $\sqrt{x+1} = 3$

$(\sqrt{x+1})^2 = (3)^2$

$x+1 = 9$

$x+1-1 = 9-1$

$x = 8$ ✓

ck

$\sqrt{x+1} = 3$

$\sqrt{8+1} = 3$ Subst

$\sqrt{9} = 3$

$3 = 3$ ✓ Good

71) $(x+1)^2 = 9$

$\sqrt{(x+1)^2} = \pm\sqrt{9}$

$x+1 = \pm 3$

Let $x+1 = -3$ OR $x+1 = 3$

$x+1-1 = -3-1$ OR $x+1-1 = 3-1$

$x = -4$ OR $x = 2$ ✓

Check

$(x+1)^2 = 9$

$(-4+1)^2 = 9$

$(-3)^2 = 9$

$(-3)(-3) = 9$

$9 = 9$ ✓

Good

$(x+1)^2 = 9$

$(2+1)^2 = 9$

$(3)^2 = 9$

$(3)(3) = 9$

$9 = 9$ ✓

Good

72) $-2x(x-5)=0$

Let $-2x=0$ OR $x-5=0$

$\frac{-2x}{-2}=\frac{0}{-2}$ OR $x-5+5=0+5$

$x=0$ OR $x=5$

73) $(2x+5)(7-x)=0$

Let $2x+5=0$ OR $7-x=0$

$2x+5-5=0-5$ OR $7-x-7=0-7$

$2x=-5$ OR $-x=-7$

$\frac{2x}{2}=\frac{-5}{2}$ OR $\frac{-1x}{-1}=\frac{-7}{-1}$

$x=-5/2$ OR $x=7$

74) $x^2+8x-20=0$

20.1
10.2
4.5
Possible

$(x-2)(x+10)=0$

Let $x-2=0$ OR $x+10=0$

$x-2+2=0+2$ OR $x+10-10=0-10$

$x=2$ OR $x=-10$

(75) $x^2 - 11x = -28$

$x^2 - 11x + 28 = -28 + 28$

$x^2 - 11x + 28 = 0$

$(x-4)(x-7) = 0$

$x - 4 = 0$ OR $x - 7 = 0$

$x - 4 + 4 = 0 + 4$ OR $x - 7 + 7 = 0 + 7$

$x = 4$ OR $x = 7$

Possible 28·1, 14·2, 4·7

31

(76) $5x^2 + 11x + 2 = 0$

Possible 5·1, 2·1

$(5x+1)(x+2) = 0$

$5x + 1 = 0$ OR $x + 2 = 0$

$5x + 1 - 1 = 0 - 1$ OR $x + 2 - 2 = 0 - 2$

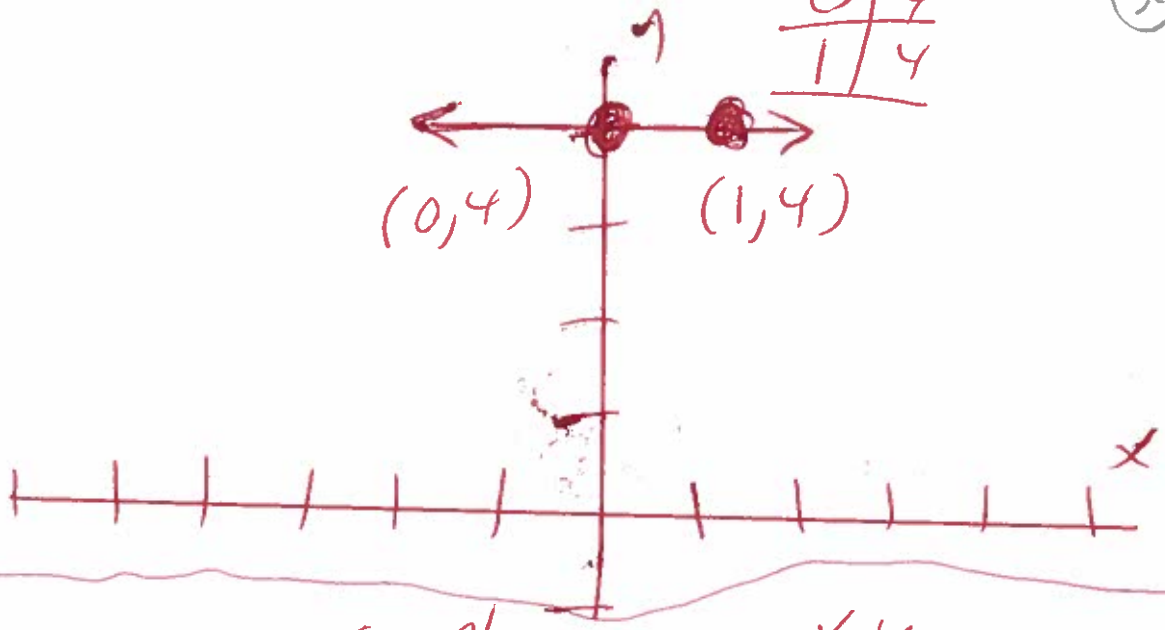
$5x = -1$ OR $x = -2$

$\frac{5x}{5} = \frac{-1}{5}$

$x = -1/5$

77) $y = 4$ graph

x	y
0	4
1	4



78) $y = -2x + 6$ graph

x	y
0	6
1	4

$y = -2(0) + 6$

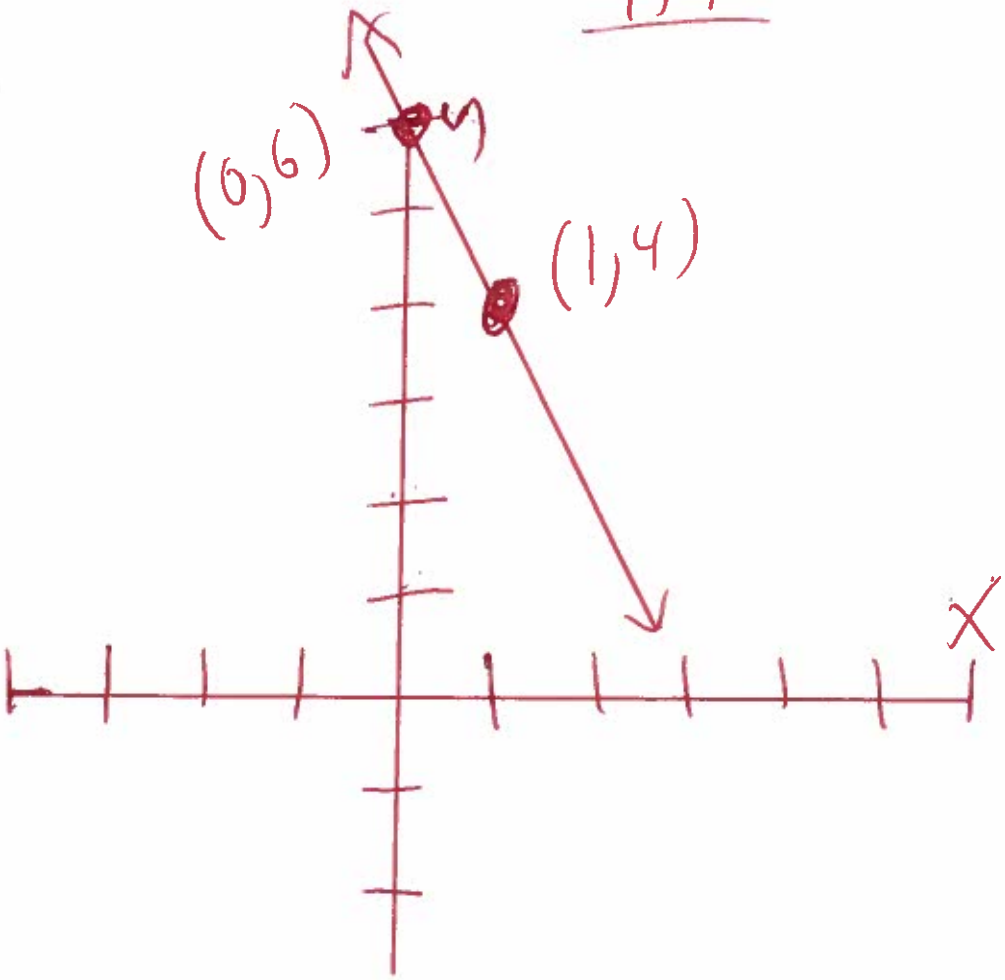
$y = 0 + 6$

$y = 6$

$y = -2(1) + 6$

$y = -2 + 6$

$y = 4$



79. $y = -\frac{3}{2}x + 1$ Graph

$y = -\frac{3}{2}(0) + 1$

$y = 0 + 1$

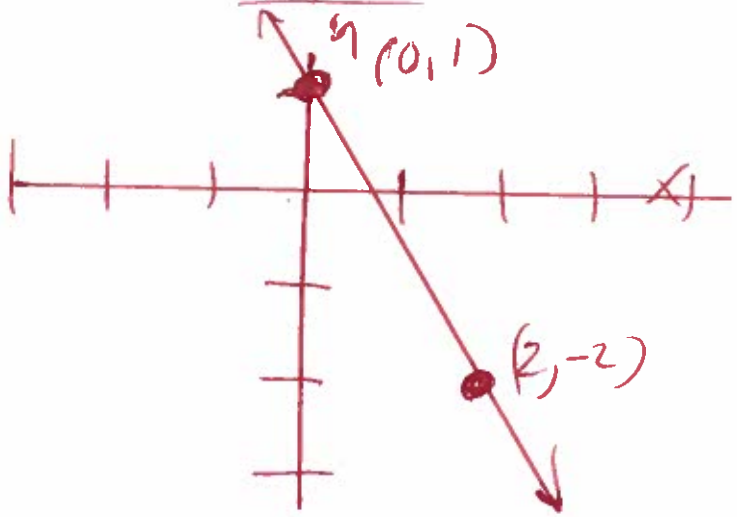
$y = 1$

$y = -\frac{3}{2}(2) + 1$

$y = -3 + 1$

$y = -2$

x	y
0	1
2	-2



80. $2x + 3y = 6$ graph

Find x-intercept let $y = 0$

$2x + 3(0) = 6$

$2x + 0 = 6$

$2x = 6$

$\frac{2x}{2} = \frac{6}{2}$

$x = 3$

x-intercept $(3, 0)$ ✓

Find y-intercept let $x = 0$

$2(0) + 3y = 6$

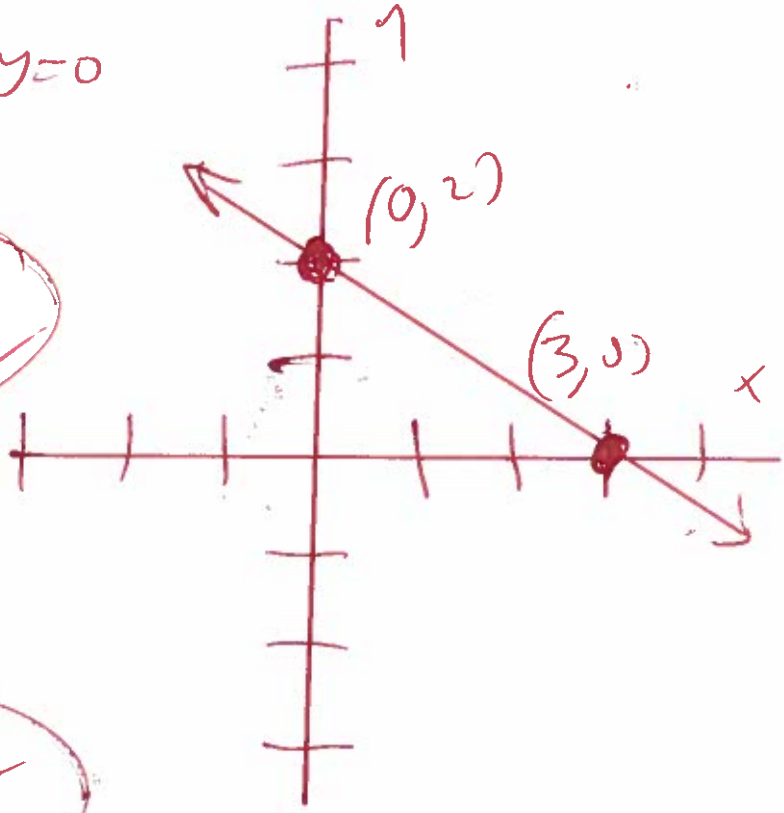
$0 + 3y = 6$

$3y = 6$

$\frac{3y}{3} = \frac{6}{3}$

$y = 2$

y-intercept $(0, 2)$ ✓



81 Solve

$$x+y=3$$
$$x-y=1$$

$$2x+0=4$$

$$2x=4$$

$$\frac{2x}{2}=\frac{4}{2}$$

$$x=2$$

Subst

$$x+y=3$$

$$(2)+y=3$$

$$2+y=3$$

$$2+y-2=3-2$$

$$y=1$$

$$(x, y)=(2, 1)$$

84

$x+y=3$

$x=2y$

$(2y)+y=3$ Subst

$2y+y=3$

$2y+1y=3$

$3y=3$

$\frac{3y}{3}=\frac{3}{3}$

$y=1$

$x=2y$ Subst

$x=2(1)$

$x=2$

$(x, y)=(2, 1)$

(83) $\frac{2a+3b}{2x} - \frac{5a-8b}{2x} =$ (36)

write as one fraction

$\frac{(2a+3b)-(5a-8b)}{2x} =$

$\frac{2a+3b-5a+8b}{2x} =$

$\frac{-3a+11b}{2x} =$