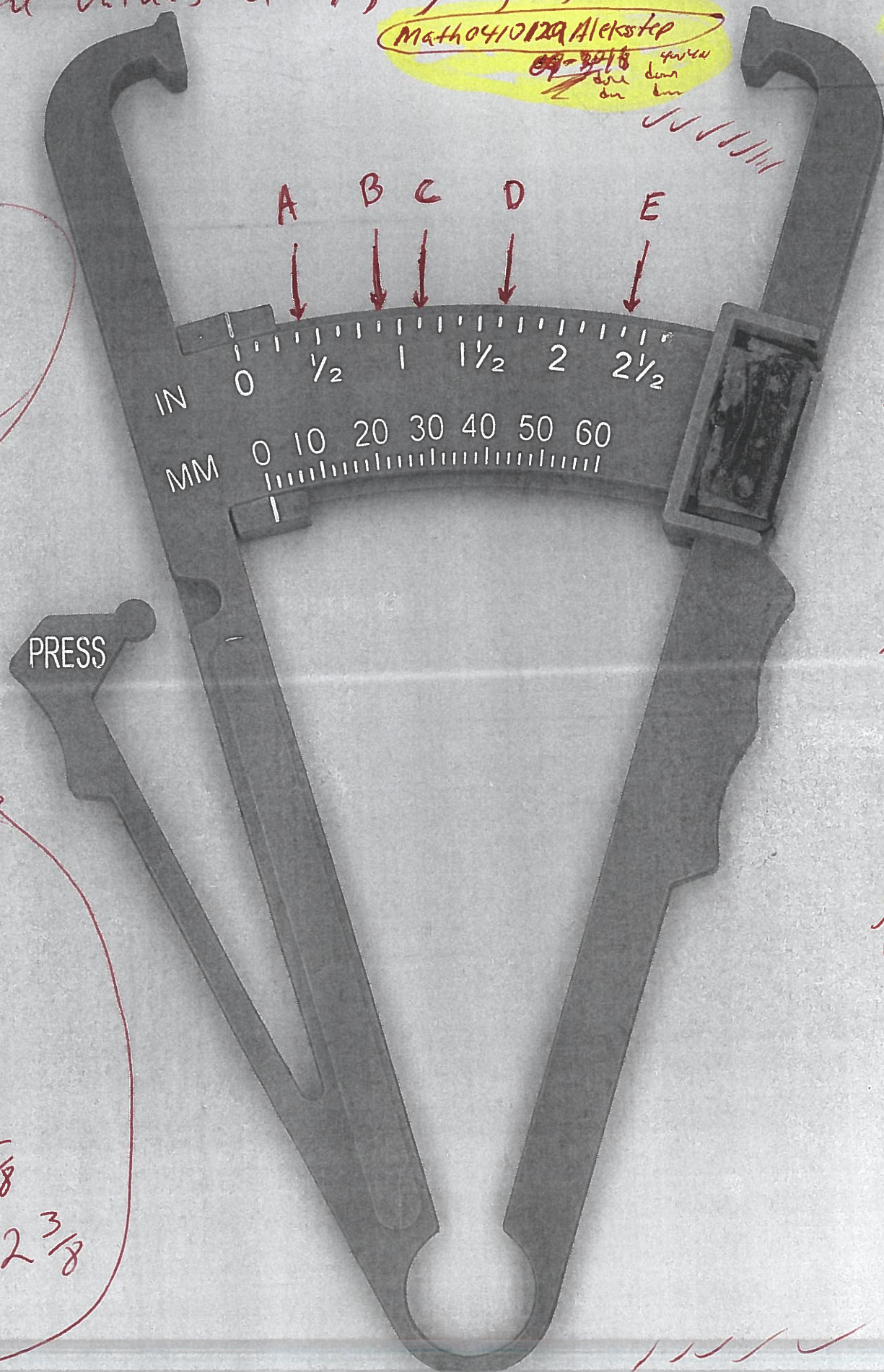


Find the values of A, B, C, D, E.

Math0410129Alekstep

~~09-24/8~~ answer  
are done  
on bin

Warm  
up



Answers

$$A = \frac{3}{8}$$

$$B = \frac{7}{8}$$

$$C = 1\frac{1}{8}$$

$$D = 1\frac{5}{8}$$

$$E = 2\frac{3}{8}$$



$$45. \frac{\frac{3}{5}}{\frac{2}{5}}$$

$$46. -6x + 2x$$

$$47. 2(3-x)$$

$$48. -2(3x-5y-2)$$

$$49. -2x + 3(x-5) + 2$$

$$50. -3x - 2(5y-3x) + 3y$$

$$51. -2x = 8$$

$$52. -2x + 1 = 21$$

$$53. 2 + 2x = -10$$

$$54. -4x - 3 = -3(x-4)$$

$$55. -7x + 4(x-4) = 8$$

$$56. \frac{2}{3}x = 12$$

$$57. \frac{3}{20} = \frac{x}{100} \text{ (write } \frac{3}{20} \text{ as percent)}$$

$$58. \frac{x}{4} + 1 = \frac{x}{2}$$

$$59. -3x^2 - 3x + 5 - 5x^2 + 6x - 1$$

$$60. (2x^2 - 3x - 7) + (-4x^2 - 10x - 1)$$

$$61. (-2x^2 + 3x + 1) - (4x^2 - 5x - 9)$$

$$62. (x^5)^5$$

$$63. (x^{-3})^3$$

$$64. x \cdot x^3 \cdot x^{10}$$

$$65. -2x^3y \cdot 5x^5 \cdot 3y^4$$

$$66. (-5x)^2$$

$$67. (-2xy^5)^3$$

$$68. \frac{-25x^3y^8}{15xy^{18}}$$

$$69. (-2x^2y)(3xy^8)$$

$$70. \left(\frac{20x^3y^4}{15z^7}\right)^2$$

$$71. 2x^3(3-5x^3)$$

$$72. (x+3)(x-3)$$

$$73. (2x-3y)^2$$

$$74. (2a+3b)(4a+2b+7)$$

$$75. 4xy^2(3xy-5x^2y^3)$$

$$76. x+y=7 \quad y=$$

$$77. A=3B+2C \quad C=$$

$$78. \frac{a}{3}=m \quad a=$$

$$79. 2x+5y=10 \quad y=$$


$$80. \sqrt{x+1}=5 \quad x=$$

$$81. \sqrt{3x+1}=\sqrt{x+21}$$

$$82. (x+2)^2=25 \quad x=$$

$$83. -2x(5-x)=0 \quad x=$$

$$84. (2x+3)(3-x)=0 \quad x=$$

- 85)  $4x+8$  factor
- 86)  $4x^2-14x$  factor
- 87)  $x^2+8x+12$  factor
- 88)  $x^2+10x+24$  factor
- 89)  $x^2+11x-12$  factor
- 90)  $x^2-8x-20$  factor
- 91)  $x^2-14x+24$  factor
- 92)  $2x^2+9x+4$  factor
- 93)  $x^2+8x+12=0$  solve
- 94)  $x^2+11x-12=0$  solve
- 95)  $x^2-8x-20=0$  solve
- 96)  $x^2-14x+24=0$  solve
- 97)  $2x^2+9x+4=0$  solve
- 98)  $4x^2-25y^2$  factor
- 99)  $25-4x^2$  factor
- 100)  $(-4, -2)$  and  $(-10, -5)$  find slope
- 101)  $(4, -7)$  and  $(-2, -7)$  find slope
- 102)  $m = \text{slope} = -2$ , point =  $(10, 60)$  find equation of the line
- 103)  $y = -2x + 4$  graph
- 104)  $y = \frac{3}{2}x - 1$  graph
- 105)  $y = 8$  graph
- 106)  $4x + 2y = 8$  graph
- 107)  $-2x \leq 4$
- 108)  $28x^3y^7 + 20x^7y^3z^{11}$  factor GCF
- 109)  $\sqrt{25x^{10}}$
- 110)  $\sqrt{49x^8y^{12}}$
- 111)  $x+y=3$   
 $x=2y$
- 112)  $2x+3y=5$   
 $5x+4y=9$
- 113)  $\frac{12m}{7m} - \frac{-2m}{7m}$
- 114)  find dot
- 115)  $2x^2+9x+4=0$  use Quadratic formula
- 116)  $x^2+2x+17=0$  use Quadratic formula
- 117)  $x^2=8x+20$  use Quadratic formula
- 118)  $|x+2|=6$
- 119)  $|x+2|<6$
- 120)  $|x+2|>6$
- 121)  $\frac{56x^3}{15y} \div \frac{24x}{25y^5}$
- 122)  $\frac{x}{3} + 6 = \frac{x}{2} + 4$   
 $x =$
- 123)  $4.8x - 70 = 2.3x + 5$   
 $x =$
- 124)  $\frac{x^3}{x-5}$
- 125)  $\frac{x^{-7}}{x^2}$

126

$$x + y = 600$$

$$x - y = 400$$

127.

$$y = 4x + 1$$

$$2y - 3x = 12$$

128

$$A = x \cdot y \cdot z, \quad x = -3, \quad y = \frac{3}{8}, \quad z = -\frac{2}{5}$$

129

$$\left(\frac{2}{5}\right)^{-2}$$

①  $2.75213 \times 1000 =$

$2752.13 =$  move decimal right 3 times

②  $24.723 \div 1000 =$

$.024723 =$  move decimal left 3 times

③  $2432.97 =$  write in scientific notation

$2.43297 \times 10^3 =$

④  $.00004793 =$  write in scientific notation

$4.793 \times 10^{-5} =$

⑤  $3[2 + (2 - 10) \div 2] + 10 =$

$3[2 + (-8) \div 2] + 10 =$

$3[2 - 4] + 10 =$

$3[-2] + 10 =$

$-6 + 10 =$

$4 =$

PEMDAS

$$\begin{aligned} (6) \quad & 2 + 3 \cdot 4^2 = \\ & 2 + 3(4)(4) = \\ & 2 + 3(16) = \\ & 2 + 48 = \end{aligned}$$

PEMDAS

$$50 =$$

$$(7) \quad \frac{29}{4} \text{ write as mixed number}$$

$$7 \frac{1}{4} =$$

$$\begin{array}{r} 7 \frac{1}{4} \\ 4 \overline{) 29} \\ \underline{-(28)} \phantom{0} \\ 1 \text{ rem} \end{array}$$

Long  
division

$$\begin{aligned} (8) \quad & 2 + 4 \div 2 + 3 \cdot 10 = \\ & 2 + 2 + 3 \cdot 10 = \\ & 2 + 2 + 30 = \\ & 4 + 30 = \end{aligned}$$

PEMDAS

$$34 =$$

$$(9) \quad x - 3y, \quad x = -10, \quad y = -2$$

$$\begin{aligned} & (-10) - 3(-2) = \\ & -10 + 6 = \end{aligned}$$

PEMDAS

$$-4 =$$

$$\begin{aligned}
 (10) \quad & (-2)^2 - 3^2 - |-5| = \\
 & (-2)(-2) - (3)(3) - (5) = \\
 & 4 - 9 - 5 = \\
 & -5 - 5 = \\
 & -10 =
 \end{aligned}$$

absolute value examples  
 PEMDAS ↓  
 formula  
 $|2| = 2$   $|0| = 0$   
 $|-3| = 3$   $|-1| = 1$   
 $|-7| = 7$   $|4| = 4$

$$(11) \quad A = \pi r^2, \quad \pi = 3.14, \quad r = 10$$

PEMDAS

$$A = 3.14 (10)^2$$

$$A = 3.14 (10)(10)$$

$$A = 3.14 (100)$$

$$A = 314.00$$

$$\begin{array}{r}
 3.14 \\
 \times 100 \\
 \hline
 314.00
 \end{array}$$

$$(12) \quad y = -2x^2 - 3x + 1, \quad x = -4$$

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

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

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

$$y = -32 + 12 + 1$$

$$y = -20 + 1$$

$$y = -19$$

PEMDAS



13. 99.98% write as decimal

$$.9998 =$$

Move decimal left  
2 times

14. 66% write as fraction simplified

$$\frac{66}{100} =$$

Prime 2, 3, 5, 7, 11, 13, ...

$$2 \overline{) 66}$$

$$3 \overline{) 33}$$

$$11 \overline{) 11}$$

1

$$2 \overline{) 100}$$

$$2 \overline{) 50}$$

$$5 \overline{) 25}$$

$$5 \overline{) 5}$$

1

$$(2)(3)(11)$$

$$(2)(2)(5)(5)$$

$$(2)(3)(11)$$

$$(2)(2)(5)(5)$$

$$\frac{33}{50} =$$

15.  $\sqrt{81} =$

$$9 =$$

16.  $\sqrt[3]{1000} =$

$$\sqrt[3]{10^3} =$$

$$10^{\frac{3}{3}} = \text{divide power}$$

$$10^1 =$$

$$10 =$$

$$(17) \sqrt{\frac{4}{9}} =$$

$$\frac{\sqrt{4}}{\sqrt{9}} =$$

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

PEMDAS

$$(18) f(x) = -2x + 8, \quad x = 3$$

$$f(3) = -2(3) + 8$$

$$f(3) = -6 + 8$$

$$f(3) = 2$$

PEMDAS

$$(19) f(x) = -\frac{2}{3}x - 1, \quad x = 3$$

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

$$f(3) = -2 - 1$$

$$f(3) = -3$$

PEMDAS

$$(20) f(x) = \sqrt{x-3}, \quad x = 7$$

$$f(7) = \sqrt{7-3}$$

$$f(7) = \sqrt{4}$$

$$f(7) = 2$$

PEMDAS

$$(21) f(x) = (x-2)^2, \quad x = -3$$

$$f(-3) = (-3-2)^2$$

$$f(-3) = (-5)^2$$

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

$$f(-3) = 25$$

PEMDAS

$$(22) f(x) = |x-8|, \quad x = 2$$

$$f(2) = |2-8|$$

$$f(2) = |-6|$$

$$f(2) = 6$$

PEMDAS

$$(23) f(x) = x^2 + 10x + 16, \quad x = -2$$

$$f(-2) = (-2)^2 + 10(-2) + 16$$

$$f(-2) = (-2)(-2) + 10(-2) + 16$$

$$f(-2) = 4 - 20 + 16$$

$$f(-2) = -16 + 16$$

$$f(-2) = 0$$

PEMDAS

24)  $\frac{2}{3}(12) =$  Prime 2, 3, 5, 7

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

$$\begin{array}{l} 2(12) \\ 2(6) \\ 3(3) \\ 1 \end{array}$$

$$8 =$$

25) 36 and 60 find GCF

Prime 2, 3, 5, 7

$$GCF = 2 \cdot 2 \cdot 3$$

$$= 12$$

$$\begin{array}{l} 2(36) \\ 2(18) \\ 3(9) \\ 3(3) \\ 1 \end{array} \quad \begin{array}{l} 2(60) \\ 2(30) \\ 3(15) \\ 5(5) \\ 1 \end{array}$$

$$36 = (2 \cdot 2 \cdot 3) \cdot 3$$

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

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

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

$$-\frac{4}{9} =$$

PEMDAS

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

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

$$\frac{-8}{27} =$$

PEMDAS

(28)  $-4\left(-\frac{3}{2}\right) =$

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

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

$$6 =$$

PEMDAS

(29)  $25^{\frac{3}{2}}$

Prime 2, 3, 5, 7

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

$$5(25)$$

$$5(5)$$

$$(5^{\frac{2}{1}})^{\frac{3}{2}}$$

$$1$$

$$5^{\frac{6}{2}} = \text{mult powers}$$

PEMDAS

$$5^3 =$$

$$(5)(5)(5) =$$

$$125 =$$

30

$$\left(\frac{1}{8}\right)^{-\frac{2}{3}} =$$

Prime 2, 3, 5, 7, ...

$$\begin{array}{r} \cancel{2} \cancel{8} \\ \cancel{2} \cancel{4} \\ \cancel{2} \cancel{2} \\ 1 \end{array}$$

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

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

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

PEMDAS

$$2^{\frac{6}{3}} = \text{mult powers}$$

$$2^2 =$$

$$(2)(2) =$$

$$4 =$$

31

$\sqrt{12}$  = Prime 2, 3, 5, 7, ...

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

$$\begin{array}{r} \cancel{2} \cancel{12} \\ \cancel{2} \cancel{6} \\ \cancel{3} \cancel{3} \\ 1 \end{array}$$

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

PEMDAS

$$2\sqrt{3} =$$

$$\textcircled{32} \quad m = -2x - 3y$$
$$m = -2(3) - 3(-5)$$

$$m = -6 + 15$$

$$\textcircled{m = 9}$$

$$x = 3, y = -5, m = ?$$

PEMDAS

$$\textcircled{33} \quad -\frac{2}{3} \left( \frac{-5}{11} \right) =$$

$$\textcircled{\frac{10}{33} =}$$

PEMDAS

$\textcircled{34}$

$$\frac{7}{10} - \frac{1}{10} =$$

$$\frac{7-1}{10} =$$

$$\frac{6}{10} =$$

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

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

$$\textcircled{\frac{3}{5} =}$$

Prime 2, 3, 5, 7.

$$\begin{array}{r} 2 \cancel{6} \\ 3 \cancel{3} \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2 \cancel{10} \\ 5 \cancel{5} \\ \hline 1 \end{array}$$

PEMDAS

35

$$\frac{5}{6} - \frac{2}{8} =$$

$$\frac{5}{6} \left(\frac{4}{4}\right) - \frac{2}{8} \left(\frac{3}{3}\right) =$$

$$\frac{20}{24} - \frac{6}{24} =$$

$$\frac{20-6}{24} =$$

$$\frac{14}{24} =$$

$$\frac{(2)(7)}{(2)(2)(2)(3)} =$$

$$\frac{7}{12} =$$

Prime 2, 3, 5, 7

LCD=24

$$\begin{array}{r} 2(6) \\ 2(8) \end{array}$$

$$\begin{array}{r} 3(3) \\ 2(4) \end{array}$$

$$\begin{array}{r} 1 \\ 2(2) \end{array}$$

$$6 = 2 \cdot 3$$

$$8 = 2 \cdot 2 \cdot 2$$

$$LCD = 2 \cdot 2 \cdot 2 \cdot 3$$

$$= 24$$

PEMDAS

Prime 2, 3, 5, 7

$$\begin{array}{r} 2(7) \\ 7(2) \\ 1 \end{array}$$

$$2(24)$$

$$2(12)$$

$$2(6)$$

$$3(3)$$

$$1$$

36

$$\frac{4}{9} \div \frac{10}{6} =$$

$$\frac{4}{9} \cdot \frac{6}{10} = \text{rewrite}$$

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

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

$$\frac{4}{15} =$$

Prime 2, 3, 5, 7, 11, ...

$$2(4)$$

$$3(9)$$

$$2(6)$$

$$2(10)$$

$$2(2)$$

$$3(3)$$

$$3(3)$$

$$5(5)$$

$$1$$

$$1$$

$$1$$

$$1$$

PEMDAS



37

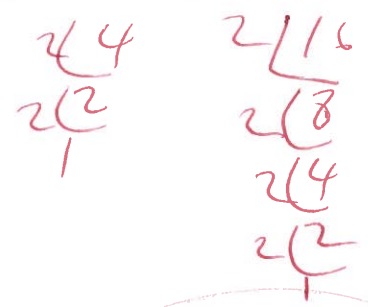
$$-\frac{3}{4} - \frac{1}{2} \cdot \frac{7}{8} =$$

LCD = 16

$$-\frac{3}{4} - \frac{7}{16} = \text{rewrite}$$

Prime 2, 3, 5, 7

$$-\frac{3}{4} \left(\frac{4}{4}\right) - \frac{7}{16} =$$



$$-\frac{12}{16} - \frac{7}{16} =$$

4 = 2 · 2  
 16 = 2 · 2 · 2 · 2  
 LCD = 2 · 2 · 2 · 2 = 16

$$\frac{-12-7}{16} =$$

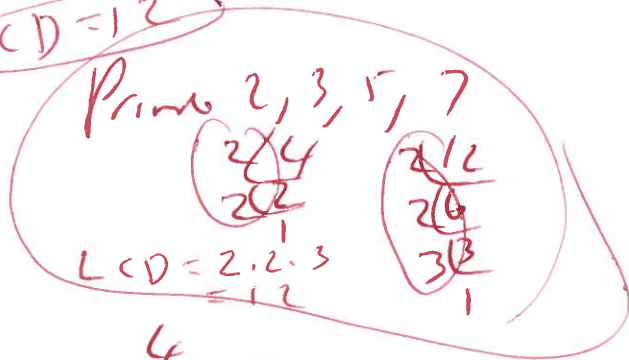
$$\frac{-19}{16} =$$

38

$$\frac{1}{12} + \frac{2}{3} \div \frac{8}{3} =$$

LCD = 12

$$\frac{1}{12} + \frac{2}{3} \cdot \frac{3}{8} = \text{rewrite}$$



$$\frac{1}{12} + \frac{2}{8} =$$

$$\frac{4}{12} =$$

$$\frac{1}{12} + \frac{(2)(1)}{(2)(2)(2)} =$$

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

$$\frac{1}{12} + \frac{1}{4} =$$

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

$$\frac{1}{12} + \frac{1}{4} \left(\frac{3}{3}\right) =$$

$$\frac{1}{12} + \frac{3}{12} =$$

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

$$\frac{1+3}{12} =$$

39)  $\frac{3}{4} + \frac{-2}{9} =$  LCD = 36

$\frac{-3}{4} + \frac{-2}{9} =$

$\frac{-3}{4} \left(\frac{9}{9}\right) + \frac{-2}{9} \left(\frac{4}{4}\right) =$

$\frac{-27}{36} + \frac{-8}{36} =$

$\frac{-27-8}{36} =$

$\frac{-35}{36} =$

Prima 2, 3, 5, 7

$\begin{array}{r} 2 \overline{)4} \\ 2 \overline{)2} \\ 1 \end{array}$

$\begin{array}{r} 3 \overline{)9} \\ 3 \overline{)3} \\ 1 \end{array}$

$4 = 2 \cdot 2$

$9 = 3 \cdot 3$

$\text{LCD} = 2 \cdot 2 \cdot 3 \cdot 3 = 36$

40)  $-3^2 + 2(-3) - 1 =$  PEMDAS

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

$-9 - 6 - 1 =$

$-15 - 1 =$

$-16 =$

41)  $-10 - (-9) \div 3 =$  PEMDAS

$-10 + 9 \div 3 =$

$-10 + 3 =$

$-7 =$

$$(42) P = 2L + 2W, \quad L = 30, \quad W = 4$$

$$P = 2(30) + 2(4)$$

$$P = 60 + 8$$

$$P = 68$$

PEMDAS

$$(43) A = LW, \quad L = 8, \quad W = 3$$

$$A = (8)(3)$$

$$A = 24$$

PEMDAS

$$(44) A = P + PRT, \quad P = 50000, \quad R = .12, \quad T = 10$$

$$A = 50000 + 50000 (.12)(10)$$

$$A = 50000 + 50000 (1.2)$$

$$A = 50000 + 60000$$

$$A = 110,000$$

PEMDAS

$$(45) \frac{\frac{3}{5}}{\frac{2}{5}} =$$

PEMDAS

$$\frac{3}{5} \cdot \frac{5}{2} = \text{rewrite}$$

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

$$46 \quad -6x + 2x =$$

$$-4x =$$

$$47 \quad 2(3-x) =$$

$$6 - 2x =$$

PEMDAS

$$48 \quad -2(3x - 5y - 2) =$$

$$-6x + 10y + 4 =$$

PEMDAS

$$49 \quad -2x + 3(x - 5) + 2 =$$

$$-2x + 3x - 15 + 2 =$$

$$1x - 13 =$$

$$x - 13 =$$

PEMDAS

$$50 \quad -3x - 2(5y - 3x) + 3y =$$

$$-3x - 10y + 6x + 3y =$$

PEMDAS

$$3x - 7y =$$

$$51 \quad -2x = 8$$

$$\frac{-2x}{-2} = \frac{8}{-2}$$

$$x = -4$$

(52)

$$-2x + 1 = 21$$

$$-2x + \cancel{x} - 1 = 21 - 1$$

$$-2x = 20$$

$$\frac{-2x}{-2} = \frac{20}{-2}$$

$$x = -10$$

(53)

$$2 + 2x = -10$$

$$\cancel{2} + 2x - \cancel{2} = -10 - 2$$

$$2x = -12$$

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

$$x = -6$$

(54)

$$-4x - 3 = -3(x - 4)$$

$$-4x - 3 = -3x + 12$$

$$-4x - \cancel{3} + \cancel{3} = -3x + 12 + 3$$

$$-4x = -3x + 15$$

$$-4x + 3x = \cancel{-3x} + 15 + \cancel{3x}$$

$$-1x = 15$$

$$\frac{-1x}{-1} = \frac{15}{-1}$$

$$x = -15$$

PEMDAS

$$55 \quad -7x + 4(x-4) = 8$$

$$-7x + 4x - 16 = 8$$

$$-3x - 16 = 8$$

$$-3x - 16 + 16 = 8 + 16$$

$$-3x = 24$$

$$\frac{-3x}{-3} = \frac{24}{-3}$$

$$x = -8$$

PEMDAS

56.

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

$$\frac{3}{2} \left( \frac{2}{3}x \right) = \frac{3}{2} (12)$$

$$x = \frac{3}{2} \left( \frac{12}{1} \right)$$

$$x = \frac{36}{2}$$

$$x = 18$$

MULT

PEMDAS

57  $\frac{3}{20} = \frac{x}{100}$  (Write  $\frac{3}{20}$  as a percent)

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

$300 = 20x$

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

$15 = x$

$$\begin{array}{r} 15 \\ 20 \overline{) 300} \\ \underline{20} \phantom{0} \\ 100 \\ \underline{100} \\ 0 \end{array}$$

long division.

$\frac{3}{20}$  is  $15\%$

58

$\frac{x}{4} + 1 = \frac{x}{2}$

$\frac{x}{4} + \frac{1}{1} = \frac{x}{2}$

$\frac{x}{4}(4) + \frac{1}{1}(4) = \frac{x}{2}(4)$  mult

$x(1) + 1(4) = x(2)$  divide

$x + 4 = 2x$

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

$4 = 2x - 4$

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

$-1x = -4$

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

$x = 4$

$L(1) = 4$

Prims 2, 3, 5, 7

$$\begin{array}{r} 2 \overline{) 4} \quad 2 \overline{) 2} \\ 2 \overline{) 2} \quad 1 \\ 4 = 2 \cdot 2 \\ 2 = 2 \\ \hline \text{LCD} = 2 \cdot 2 \\ = 4 \end{array}$$

$$(59) \quad -3x^2 - 3x + 5 - 5x^2 + 6x - 1 =$$

PEMDAS

$$-8x^2 + 3x + 4 =$$

$$(60) \quad (2x^2 - 3x - 7) + (-4x^2 - 10x - 1) =$$

$$2x^2 - 3x - 7 - 4x^2 - 10x - 1 = \text{PEMDAS}$$

$$-2x^2 - 13x - 8 =$$

$$(61) \quad (-2x^2 + 3x + 1) - (4x^2 - 5x - 9) = \text{PEMDAS}$$

$$-2x^2 + 3x + 1 - 4x^2 + 5x + 9 =$$

$$-6x^2 + 8x + 10 =$$

$$(62) \quad (x^5)^5 =$$

PEMDAS

$$x^{(5/5)} = \text{mult powers}$$

$$x^{25} =$$

$$(63) \quad (x^{-3})^3 =$$

PEMDAS

$$x^{(-3/3)} = \text{mult powers}$$

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



64

$$x^0 \cdot x^3 \cdot x^{10} =$$

$$x^1 \cdot x^3 \cdot x^{10} = \text{rewrite}$$

$$x^{1+3+10} = \text{add powers}$$

$$x^{14} =$$

65

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

$$-2x^3y^1 \cdot 5x^5 \cdot 3y^4 = \text{rewrite}$$

$$-30x^{3+5}y^{1+4} = \text{add powers}$$

$$-30x^8y^5 =$$

66

$$(-5x)^2 =$$

$$(-5x^1)(-5x^1) = \text{rewrite}$$

$$25x^{1+1} = \text{add powers}$$

$$25x^2 =$$

67

$$(-2xy^5)^3 =$$

$$(-2)^1 x^1 y^5)^3 = \text{rewrite}$$

$$(-2)^{1(3)} x^{1(3)} y^{5(3)} = \text{mult powers}$$

$$(-2)^3 x^3 y^{15} =$$

$$(-2)(-2)(-2) x^3 y^{15} =$$

$$\underline{-8x^3y^{15} =}$$

68

$$\frac{-25x^3y^8}{15xy^{18}} =$$

Prime 2, 3, 5, 7...

$$\begin{array}{r} \textcircled{5} \overline{)25} \\ \underline{5} \phantom{0} \\ 1 \end{array} \quad \begin{array}{r} \textcircled{3} \overline{)15} \\ \underline{5} \phantom{0} \\ 1 \end{array}$$

$$\frac{-25x^3y^8}{15xy^{18}} =$$

$$\frac{-1 \cancel{(5)} \cancel{(5)} x^{3-1}}{\cancel{(3)} \cancel{(5)} y^{18-8}} =$$

$$\underline{\frac{-5x^2}{3y^{10}} =}$$

69  $(-2x^2y)(3xy^8) =$

$(-2x^2y^1)(3x^1y^8) =$

$-6x^{2+1}y^{1+8} = \text{add powers}$

$-6x^3y^9 =$

70

$\left(\frac{20x^3y^4}{15z^7}\right)^2 =$

Primes 2, 3, 5, 7.

$2(20) \quad 3(15)$

$2(10)$

$5(5)$

$5(5)$

$1$

$1$

$\left(\frac{(2)(2)(\cancel{5})x^3y^4}{(3)(\cancel{5})z^7}\right)^2 =$

$\left(\frac{4^1x^3y^4}{3^1z^7}\right)^2 =$

$\frac{4^{1(2)}x^{3(2)}y^{4(2)}}{3^{1(2)}z^{7(2)}} =$

$\frac{4^2x^6y^8}{3^2z^{14}} =$

$\frac{(4)(4)x^6y^8}{(3)(3)z^{14}} =$

$\frac{(4)(4)x^6y^8}{(3)(3)z^{14}} =$

$\frac{16x^6y^8}{9z^{14}}$

$$(71) \quad 2x^3(3 - 5x^3) =$$

$$6x^3 - 10x^{3+3} =$$

PEMDAS

$$6x^3 - 10x^6 =$$

$$(72) \quad (x+3)(x-3) =$$

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

PEMDAS

$$x^2 - 9 =$$

$$(73) \quad (2x-3y)^2 =$$

$$(2x-3y)(2x-3y) = \text{rewrite PEMDAS}$$

$$4x^2 - 6xy - 6xy + 9y^2 =$$

$$4x^2 - 12xy + 9y^2 =$$

$$(74) \quad (2a+3b)(4a+2b+7)$$

PEMDAS

$$8a^2 + 4ab + 14a + 12ab + 6b^2 + 21b =$$

$$8a^2 + 16ab + 14a + 6b^2 + 21b =$$

$$(75) \quad 4xy^2(3xy - 5x^2y^3) =$$

PEMDAS

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

$$12x^{1+1}y^{2+1} - 20x^{1+2}y^{2+3} =$$

$$12x^2y^3 - 20x^3y^5 =$$

$$(76) \quad x+y=7 \quad (y=)$$

$$x+y-x=7-x$$

$$y=7-x$$

OR

$$y=-x+7$$

$$(77) \quad A=3B+2C \quad (C=)$$

$$A-3B=3B+2C-3B$$

$$A-3B=2C$$

$$\frac{A-3B}{2} = \frac{2C}{2}$$

$$\frac{A-3B}{2} = C$$

OR

$$\frac{A}{2} - \frac{3B}{2} = C$$

$$(78) \quad \frac{a}{3} = m$$

$$3\left(\frac{a}{3}\right) = 3(m) \quad \text{MULT}$$

$$a = 3m$$

$$(79) \quad 2x + 5y = 10 \quad (y =$$

$$2x + 5y - 2x = 10 - 2x$$

$$5y = 10 - 2x$$

$$\frac{5y}{5} = \frac{10}{5} - \frac{2x}{5}$$

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

OR

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

$$(80) \quad \sqrt{x+1} = 5$$

$$(\sqrt{x+1})^2 = (5)^2$$

$$x+1 = 25$$

$$x+1-1 = 25-1$$

$$x = 24$$

$$(CK) \quad \sqrt{x+1} = 5$$

$$\sqrt{24+1} = 5$$

$$\sqrt{25} = 5$$

$$5 = 5$$

✓  
✓  
✓  
Good

81

$$\sqrt{3x+1} = \sqrt{x+21}$$

$$(\sqrt{3x+1})^2 = (\sqrt{x+21})^2$$

$$3x+1 = x+21$$

$$3x + \cancel{-x} = x + 21 - 1$$

$$3x = x + 20$$

$$3x = 1x + 20$$

$$3x - 1x = 1x + 20 - \cancel{1x}$$

$$2x = 20$$

$$\frac{2x}{2} = \frac{20}{2}$$

$$x = 10$$

ck

$$\sqrt{3x+1} = \sqrt{x+21}$$

$$\sqrt{3(10)+1} = \sqrt{10+21}$$

$$\sqrt{30+1} = \sqrt{31}$$

$$\sqrt{31} = \sqrt{31}$$

Good



82

$$(x+2)^2 = 25$$

$$\sqrt{(x+2)^2} = \pm\sqrt{25}$$

$$x+2 = \pm 5$$

$$x+2 = -5 \quad \text{OR} \quad x+2 = 5$$

$$x+2-x = -5-2 \quad \text{OR} \quad x+2-x = 5-2$$

$$x = -7 \quad \text{OR} \quad x = 3$$

CK

$$(x+2)^2 = 25$$

PEMDAS

$$(-7+2)^2 = 25$$

$$(-5)^2 = 25$$

$$(-5)(-5) = 25$$

$$25 = 25 \quad \checkmark \quad \text{Good}$$

$$(x+2)^2 = 25$$

PEMDAS

$$(3+2)^2 = 25$$

$$(5)^2 = 25$$

$$(5)(5) = 25$$

$$25 = 25 \quad \checkmark$$

Good



$$83) -2x(5-x)=0$$

$$\text{let } -2x=0 \quad \text{OR} \quad 5-x=0$$

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

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

$$x=0 \quad \text{OR} \quad \frac{-x}{-1} = \frac{-5}{-1}$$

$$x=5$$

$$84) (2x+3)(3-x)=0$$

$$\text{let } 2x+3=0 \quad \text{OR} \quad 3-x=0$$

$$2x+3-3=0-3 \quad \text{OR} \quad 3-x-3=0-3$$

$$2x = -3 \quad \text{OR} \quad -x = -3$$

$$\frac{2x}{2} = \frac{-3}{2} \quad \text{OR} \quad \frac{-x}{-1} = \frac{-3}{-1}$$

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

$$x = 3$$

$$85) 4x+8 = \text{factor}$$

$$4(x+2) =$$

$$86) 4x^2 - 14x = \text{factor}$$

$$2x(2x-7) =$$

87.  $x^2 + 8x + 12 = \text{factor}$

$(x+2)(x+6) =$

12.1 possible  
6.2  
3.4

88.  $x^2 + 10x + 24 = \text{factor}$

$(x+4)(x+6) =$

24.1 possible  
12.2  
6.4  
3.8

89.  $x^2 + 11x + 12 = \text{factor}$

$(x-1)(x+12) =$

Possible  
20.1  
10.2  
4.5

90.  $x^2 - 8x - 20 = \text{factor}$

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

Possible  
24.1  
12.2  
6.4  
3.8

91.  $x^2 - 14x + 24 = \text{factor}$

$(x-2)(x-12) =$

possible  
2.1  
4.1  
2.2

92.  $2x^2 + 9x + 4 = \text{factor}$

$(2x+1)(x+4) =$

$$(93) \quad x^2 + 8x + 12 = 0$$

$$(x+2)(x+6) = 0$$

$$\text{or } x+2=0 \quad \text{or } x+6=0$$

$$x+2-2=0-2 \quad \text{OR} \quad x+6-6=0-6$$

$$x = -2 \quad \text{OR} \quad x = -6$$

12-1 possible  
3.4  
6.2

$$(94) \quad x^2 + 11x - 12 = 0$$

$$(x-1)(x+12) = 0$$

$$\text{or } x-1=0 \quad \text{OR} \quad x+12=0$$

$$x-1+1=0+1 \quad \text{OR} \quad x+12-12=0-12$$

$$x = 1 \quad \text{OR} \quad x = -12$$

12-1 possible  
6.2  
3.4

$$(95) \quad x^2 - 8x - 20 = 0$$

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

$$\text{or } x+2=0 \quad \text{OR} \quad x-10=0$$

$$x+2-2=0-2 \quad \text{OR} \quad x-10+10=0+10$$

$$x = -2 \quad \text{OR} \quad x = 10$$

possible  
20-1  
10.2  
4.5

$$96 \quad x^2 - 14x + 24 = 0$$

$$(x-2)(x-12) = 0$$

$$\text{or } x-2=0 \quad \text{or } x-12=0$$

$$x-2+2=0+2 \quad \text{or } x-12+12=0+12$$

$$x=2 \quad \text{or } x=12$$

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12.2
6.4
3.8

$$97 \quad 2x^2 + 9x + 4 = 0$$

$$(2x+1)(x+4) = 0$$

$$\text{or } 2x+1=0 \quad \text{or } x+4=0$$

$$2x+1-1=0-1 \quad \text{or } x+4-4=0-4$$

$$2x = -1 \quad \text{or } x = -4$$

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

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

possible

4.1
2.2

2.1

98  $4x^2 - 25y^2 =$  factor

$$(2x)^2 - (5y)^2 =$$

$$(2x + 5y)(2x - 5y)$$

formula  
 $a^2 - b^2$   
 $(a+b)(a-b)$

99  $25 - 4x^2 =$  factor

$$(5)^2 - (2x)^2 =$$

$$(5 + 2x)(5 - 2x)$$

formula  
 $a^2 - b^2$   
 $(a+b)(a-b)$

100  $(-4, -2)$  and  $(-10, -5)$  find slope  
 $x_1 \quad y_1 \quad x_2 \quad y_2$

$$M = \frac{y_1 - y_2}{x_1 - x_2} \text{ formula}$$

$$M = \frac{-2 - (-5)}{-4 - (-10)}$$

$$M = \frac{-2 + 5}{-4 + 10}$$

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

$$M = \frac{3(1)}{3(2)}$$

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

101  $(-4, -7)$  and  $(-2, -7)$  find slope  
 $x_1 \quad y_1 \quad x_2 \quad y_2$

$$M = \frac{y_1 - y_2}{x_1 - x_2} \text{ formula}$$

$$M = \frac{(-7) - (-7)}{(-4) - (-2)}$$

$$M = \frac{-7 + 7}{-4 + 2}$$

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

$$M = 0$$

102  $M = \text{slope} = -2$ , point =  $(10, 60)$   
 $x_1 \quad y_1$   
find equation of the line

$$y - y_1 = m(x - x_1)$$

$$y - (60) = -2(x - (10))$$

$$y - 60 = -2(x - 10)$$

$$y - 60 = -2x + 20$$

$$y - 60 + 60 = -2x + 20 + 60$$

$$y = -2x + 80$$

(103)  $y = -2x + 4$  graph

$$y = -2(0) + 4$$

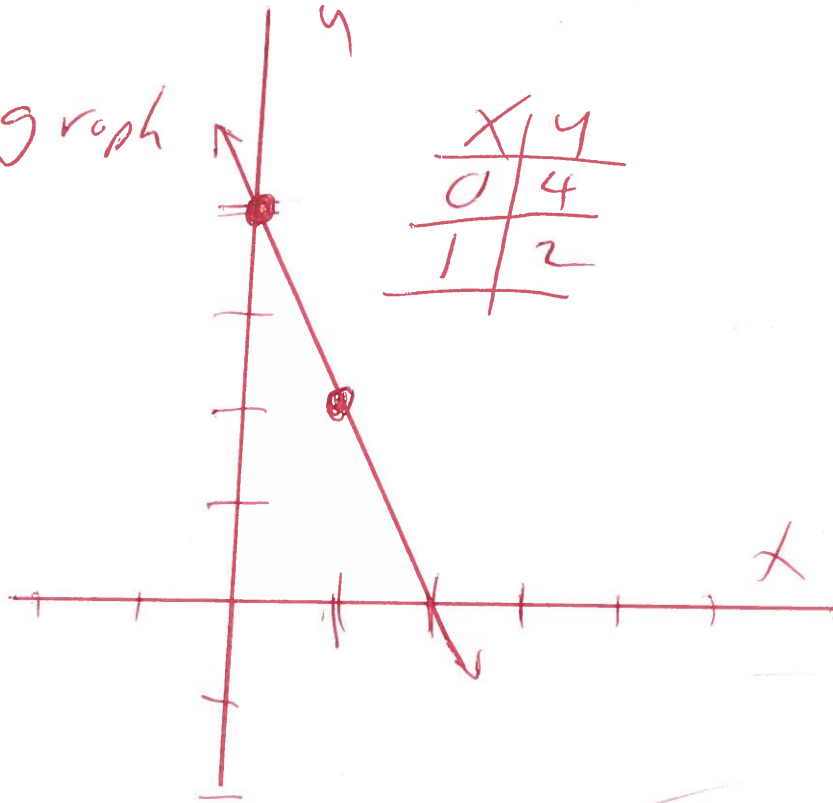
$$y = 0 + 4$$

$$y = 4$$

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

$$y = -2 + 4$$

$$y = 2$$



x	y
0	4
1	2

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

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

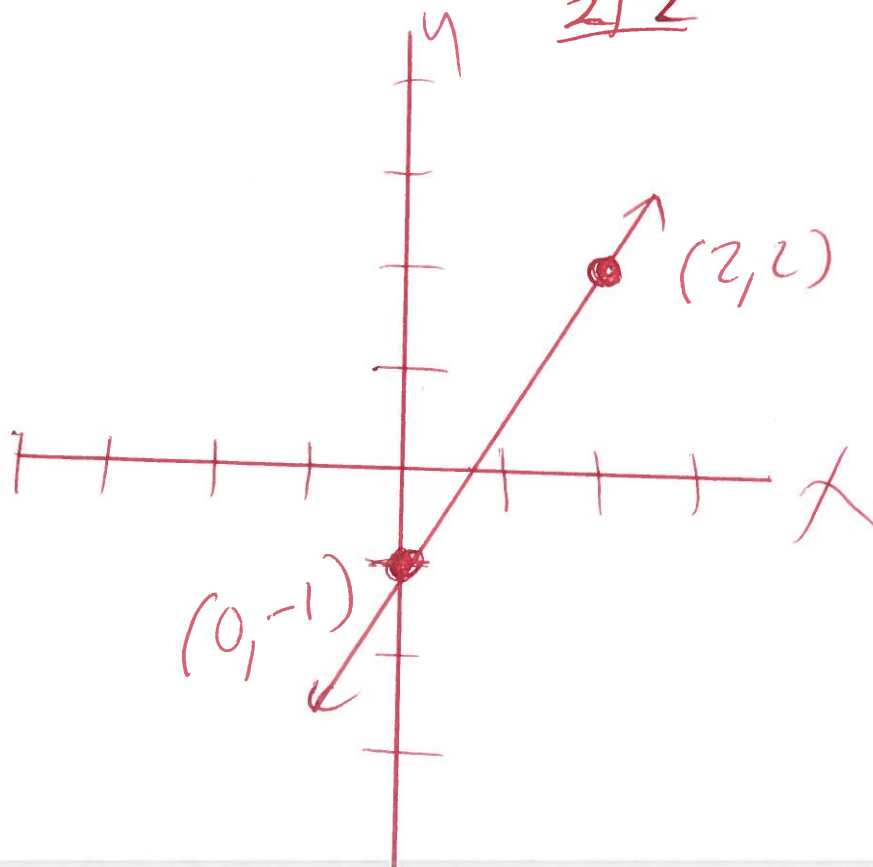
$$y = 0 - 1$$

$$y = -1$$

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

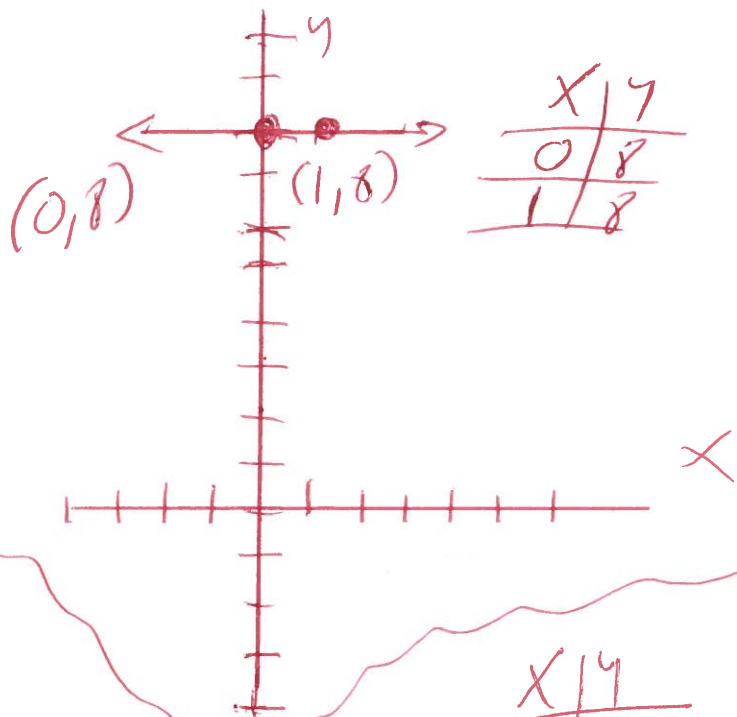
$$y = 3 - 1$$

$$y = 2$$



x	y
0	-1
2	2

(105)  $y=8$  graph



x	y
0	8
1	8

(106)  $4x+2y=8$  graph  
find x-intercept let  $y=0$

$$4x + 2(0) = 8$$

$$4x + 0 = 8$$

$$4x = 8$$

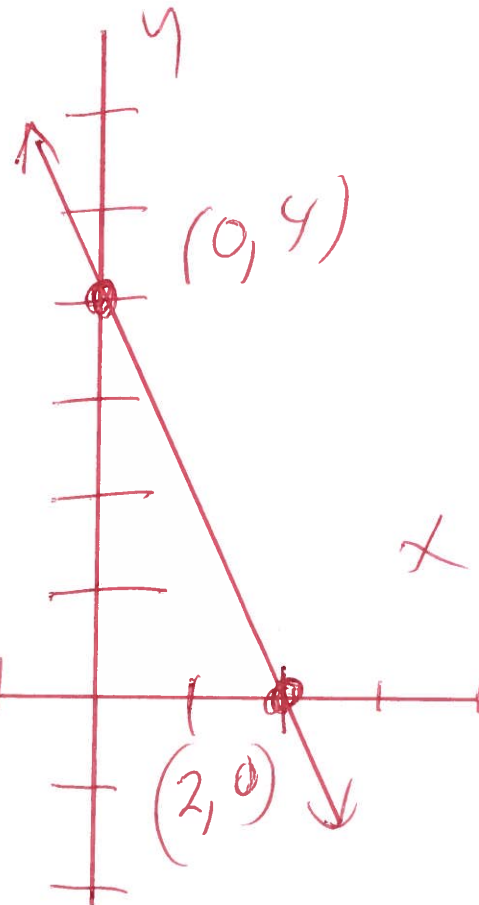
$$\frac{4x}{4} = \frac{8}{4}$$

$$x = 2$$

x-intercept

$$(2, 0)$$

x	y
2	0
0	4



$$4x + 2y = 8$$

find y-intercept. let  $x=0$

$$4(0) + 2y = 8$$

$$0 + 2y = 8$$

$$2y = 8$$

$$\frac{2y}{2} = \frac{8}{2}$$

y-intercept

$$y = 4$$

$$(0, 4)$$



107

$$-2x \leq 4$$

$\frac{-2x}{-2} \geq \frac{4}{-2}$  ← divide by a negative and turn alligator around.

$$x \geq -2$$



$$[-2, \infty)$$

108

$$28x^3y^7 + 20x^7y^3z^{11} \quad \text{factor GCF}$$

$$4x^3y^3(7y^4 + 5x^4z^{11})$$

Prime 2, 3, 5, 7.  
2|28 2|20  
2|14 2|10  
7|7 5|5  
1 1

$$28 = 2 \cdot 2 \cdot 7$$
$$20 = 2 \cdot 2 \cdot 5$$

$$\text{GCF} = 2 \cdot 2 = 4$$

109

$$\sqrt{25x^{10}} = \quad \text{Prime 2, 3, 5, 7.}$$

$$\sqrt{5^2 x^{10}} = \quad 5|25$$

$$5^{2/2} x^{10/2} = \text{divide powers}$$

$$5|5$$

1

$$5x^5 =$$

110

$$\sqrt{49 \times 8y^{12}} =$$

Prime 2, 3, 5, 7...

$$\begin{array}{r} 7 \overline{) 49} \\ 7 \overline{) 70} \\ \hline 1 \end{array}$$

$$\sqrt{7^2 \times 8y^{12}} = \text{rewrite}$$

$$7^{2/2} \times 8^{1/2} y^{12/2} = \text{divide powers}$$

$$7^1 \times 4y^6 =$$

$$7x^4y^6 =$$

111

$$x + y = 3$$

$$x = 2y$$

$$(2y) + y = 3$$

Subst into equation

$$2y + 1y = 3 \text{ rewrite}$$

$$3y = 3$$

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

$$y = 1$$

Subst

$$x + y = 3$$

$$x + 1 = 3$$

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

$$x = 2$$

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

112

$$2x + 3y = 5$$

$$5x + 4y = 9$$

$$\begin{array}{l} (2x + 3y = 5) \\ (5x + 4y = 9) \end{array} \begin{array}{l} (-4) \\ (3) \end{array} \text{ mult}$$

$$-8x - 12y = -20$$

$$15x + 12y = 27$$

$$7x = 7$$

$$\frac{7x}{7} = \frac{7}{7}$$

$$x = 1$$

Subst

$$2x + 3y = 5$$

$$2(1) + 3y = 5$$

$$2 + 3y = 5$$

$$2 + 3y - 2 = 5 - 2$$

$$3y = 3$$

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

$$y = 1$$

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

113

$$\frac{12n}{7m} - \frac{-2n}{7m} =$$

$$\frac{(12n) - (-2n)}{7m} = \text{write as one fraction}$$

$$\frac{12n + 2n}{7m} =$$

$$\frac{14n}{7m} =$$

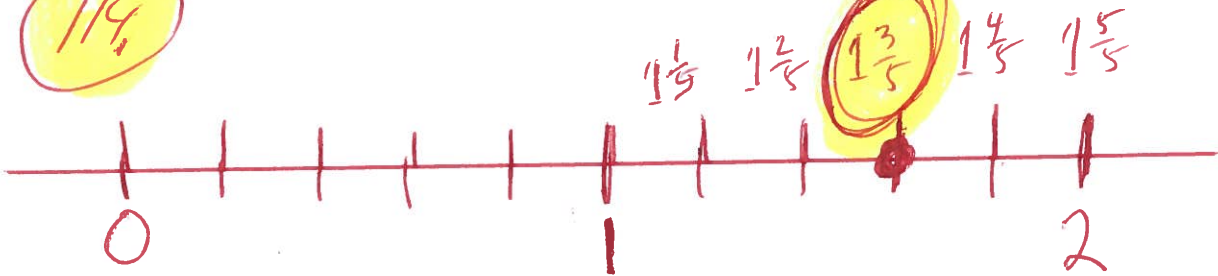
$$\frac{(2)(7)n}{(7)m} =$$

Prime 2, 3, 5, 7

$$\begin{array}{r} 2 \overline{)14} \\ \underline{14} \\ 0 \end{array}$$

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

114



find Dot  $\nearrow$

$$(115.) \quad 2x^2 + 9x + 4 = 0$$

$$(2x+1)(x+4) = 0$$

$$2x+1=0 \quad \text{OR} \quad x+4=0$$

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

$$2x=-1 \quad \text{OR} \quad x+4-4=0-4$$

$$\frac{2x}{2} = \frac{-1}{2} \quad \text{OR} \quad x = -4$$

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

Use Quadratic formula

$$2x^2 + 9x + 4 = 0$$

$$a=2, b=9, c=4$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-(9) \pm \sqrt{(9)^2 - 4(2)(4)}}{2(2)}$$

$$x = \frac{-9 \pm \sqrt{81 - 32}}{4}$$

$$x = \frac{-9 \pm \sqrt{49}}{4}$$

$$x = \frac{-9 \pm 7}{4}$$

$$x = \frac{-9+7}{4} \quad \text{OR} \quad x = \frac{-9-7}{4}$$

$$x = \frac{-2}{4} \quad \text{OR} \quad x = \frac{-16}{4}$$

$$x = \frac{2(-1)}{2(2)}$$

$$x = -4$$

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

possibilities

2.1	4.1
	2.2

$$(1/6) \quad 1x^2 + 2x + 17 = 0$$

$$a=1, b=2, c=17$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-(2) \pm \sqrt{(2)^2 - 4(1)(17)}}{2(1)}$$

$$x = \frac{-2 \pm \sqrt{4 - 68}}{2}$$

$$x = \frac{-2 \pm \sqrt{-64}}{2}$$

$$x = \frac{-2 \pm 8i}{2}$$

$$x = -1 \pm 4i$$

$$x = -1 - 4i \quad \text{OR}$$

$$x = -1 + 4i$$

$$(117) \quad x^2 = 8x + 20$$

20.1 possibly  
10.2  
4.5

$$x^2 - 8x - 20 = 0$$

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

$$\text{either } x+2=0 \text{ OR } x-10=0$$

$$x+2/-2=0/-2 \text{ OR } x-10/+10=0/+10$$

$$x = -2 \text{ OR } x = 10$$

Use Quadratic formula

$$1x^2 - 8x - 20 = 0$$

$$a=1, b=-8, c=-20$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-(-8) \pm \sqrt{(-8)^2 - 4(1)(-20)}}{2(1)}$$

$$x = \frac{8 \pm \sqrt{64 + 80}}{2}$$

$$x = \frac{8 \pm \sqrt{144}}{2}$$

$$x = \frac{8 \pm 12}{2}$$

$$x = 4 \pm 6$$

$$x = 4 - 6 \text{ OR } x = 4 + 6$$

$$x = -2 \text{ OR } x = 10$$

$$(118) |x+2|=6$$

$$\text{set } x+2=-6 \text{ OR } x+2=6$$

$$x+2-2=-6-2 \text{ OR } x+2-2=6-2$$

$$x=-8 \text{ OR } x=4$$

formula  
 $|x|=a$   
 $x=-a$  OR  $x=a$

$$(119) |x+2|<6$$

$$-6 < x+2 < 6$$

$$-6-2 < x+2-2 < 6-2$$

$$-8 < x < 4$$



$$(-8, 4)$$

formula  
 $|x|<a$   
 $-a < x < a$

$$(120) |x+2|>6$$

set

$$x+2 < -6 \text{ OR } x+2 > 6$$

$$x+2-2 < -6-2 \text{ OR } x+2-2 > 6-2$$

$$x < -8 \text{ OR } x > 4$$



$$(-\infty, -8) \cup (4, \infty)$$

formula  
 $|x|>a$

$$x < -a \text{ OR } x > a$$



(121)  $\frac{56x^3}{15y} \cdot \frac{24x}{25y^5} =$

$\frac{56x^3}{15y} \cdot \frac{25y^5}{24x} =$  Rewrite

$\frac{(2)(2)(2)(7)xxx}{(3)(5)y^1} \cdot \frac{(5)(5)y^5}{(2)(2)(2)(3)x} =$

~~$\frac{(2)(2)(2)(7)xxx}{(3)(5)y^1} \cdot \frac{(5)(5)y^5}{(2)(2)(2)(3)x}$~~

$\frac{35x^2y^5}{9y^1} =$

$\frac{35x^2y^{5-1}}{9} =$  Subtract powers

$\frac{35x^2y^4}{9} =$

Primes 2, 3, 5, 7

2   56	3   15
2   28	5   5
2   14	1
7   7	
1	

2   24	5   25
2   12	5   5
2   6	1
3   3	
1	

121

$$\frac{x}{3} + 6 = \frac{x}{2} + 4$$

LCD = 6

Prime factors: 2, 3, 5, 7  
3 | 3    2 | 2  
1       1  
LCD = 2 · 3 = 6

$$\frac{x}{3} + \frac{6}{1} = \frac{x}{2} + \frac{4}{1}$$

$$\frac{x}{3}(6) + \frac{6}{1}(6) = \frac{x}{2}(6) + \frac{4}{1}(6) \quad \text{Mult}$$

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

$$2x + 36 = 3x + 24$$

$$2x + \cancel{36} - \cancel{36} = 3x + 24 - 36$$

$$2x = 3x - 12$$

$$2x - 3x = \cancel{3x} - 12 - \cancel{3x}$$

$$-1x = -12$$

$$\frac{-1x}{-1} = \frac{-12}{-1}$$

$$x = 12$$

CR

$$\frac{12}{3} + 6 = \frac{12}{2} + 4 \quad \text{subst}$$

$$4 + 6 = 6 + 4$$

10 = 10    Good ✓✓

123

$$4.8x - 70 = 2.3x + 5$$

$$4.8x - \cancel{70} + \cancel{70} = 2.3x + 5 + 70$$

$$4.8x = 2.3x + 75$$

$$4.8x - 2.3x = \cancel{2.3x} + 75 - \cancel{2.3x}$$

$$2.5x = 75$$

$$\frac{2.5x}{2.5} = \frac{75}{2.5}$$

$$x = 30$$

124

$$\frac{x^3}{x^{-5}} =$$

$$\frac{x^3 x^5}{1} = \text{rewrite}$$

$$x^{3+5} = \text{add powers}$$

$$x^8 =$$

125

$$\frac{x^{-7}}{x^2} =$$

$$\frac{1}{x^2 x^7} = \text{rewrite}$$

$$\frac{1}{x^{2+7}} = \text{add powers}$$

$$\frac{1}{x^9} =$$

12c.

$$x + y = 600$$

$$x - y = 400$$

$$2x + 0 = 1000$$

$$2x = 1000$$

$$\frac{2x}{2} = \frac{1000}{2}$$

$$x = 500$$

Subst

$$x + y = 600$$

$$(500) + y = 600$$

$$500 + y - 500 = 600 - 500$$

$$y = 100$$

$$(x, y) = (500, 100)$$

127

$$y = 4x + 1$$

$$2y - 3x = 12$$

Subst

$$2(4x + 1) - 3x = 12$$

$$8x + 2 - 3x = 12$$

$$5x + 2 = 12$$

$$5x + \cancel{2} - \cancel{2} = 12 - 2$$

$$5x = 10$$

$$\frac{5x}{5} = \frac{10}{5}$$

$$x = 2$$

Subst

$$y = 4x + 1$$

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

$$y = 8 + 1$$

$$y = 9$$

$$(x, y) = (2, 9)$$

(128)  $A = x \cdot y \cdot z$      $x = -3$ ,     $y = \frac{3}{8}$ ,     $z = -\frac{2}{5}$

$$A = (-3) \left(\frac{3}{8}\right) \left(-\frac{2}{5}\right)$$

$$A = \left(\frac{-3}{1}\right) \left(\frac{3}{8}\right) \left(\frac{-2}{5}\right)$$

$$A = \left(\frac{-3}{1}\right) \left(\frac{(3)}{(2)(2)(2)}\right) \left(\frac{-2}{5}\right)$$

$$A = \left(\frac{-3}{1}\right) \left(\frac{(3)}{(2)(2)(2)}\right) \left(\frac{-1(2)}{(5)}\right) =$$

Primer 2, 3, 5, 7.

$$\begin{array}{r} 2(8) \\ 2(4) \\ 2(2) \\ 1 \end{array}$$

$$A = \frac{9}{20}$$

(129)  $\left(\frac{2}{5}\right)^{-2} =$

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

$\frac{2^{1(-2)}}{5^{1(-2)}} =$  Mult powers

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

$$\frac{2^2}{5^2}$$

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

$$\frac{25}{4} =$$