5B

1) (2, 3)

2) 1

3) (-1, -3)

4) 3

5) (2, -2)

6) 4

7) (-2, 1)

8) 2

9) (5, -5)

10) 4

11) on graph

12) 3

13) on graph

14) 1

15) on graph

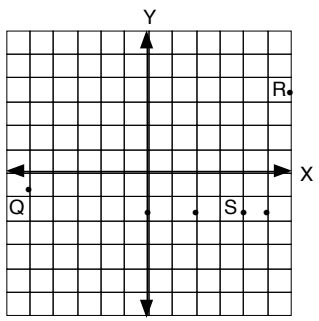
16) 4

17) (0, 0)

18) negative, negative

19) the same Y coordinate

20) Y, -2



5C

1) (5, 4)

2) (2, 6)

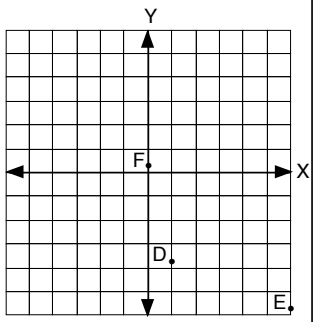
3) (-2, 1)

4) see graph

5) see graph

6) see graph

7) Descartes



8) positive, positive

9) Y, X

10) origin

11) 100(.05X) + 100(.12X) = 100(.85)
5X + 12X = 85, 17X = 85, X = 5

12) -72 + 8Y = 32
8Y = 104, Y = 13

13) 7(-B + 2 + 7 - 1) = 13 + 3B + 5B
7(-B + 8) = 13 + 8B, -7B + 56 = 13 + 8B
43 = 15B, 2 13/15 = B

14) -4(P - 6) + 2P = |5 - 3 + 6|
-4P + 24 + 2P = |8|
-2P + 24 = 8, 16 = 2P, 8 = P

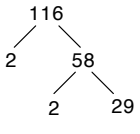
15) 3 = 3, 4 = 2 x 2, 7 = 7,
so LCM = 2 x 2 x 3 x 7 = 84

$$\overset{12}{\cancel{(84)}}\frac{18}{\cancel{7}} - \overset{21}{\cancel{(84)}}\frac{1}{\cancel{4}}Q = \overset{28}{\cancel{(84)}}\frac{-17}{\cancel{3}}$$

216 - 21Q = -476, Q = 32 20/21

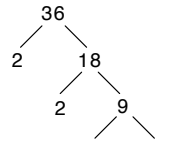
16) 100(.3X) - 100(.06X) = 100(1.25)
30X - 6X = 125, 24X = 125,
X = 5 5/24 or 5.21 (rounded)

17)



2 x 2 x 29

18)



2 x 2 x 3 x 3

19) B + A

20) A + (B + C)

5D

1) (-3, -1)

2) (0, -4)

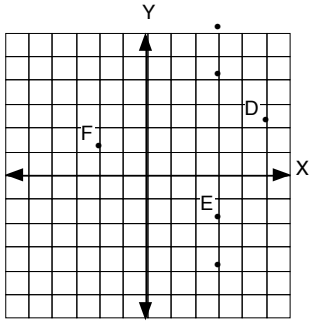
3) (-4, 2)

4) see graph

5) see graph

6) see graph

7) cartesian



8) negative, positive

9) same X coordinate

10) X, 3

11) 10(-1.3) + 10(2.7) = 10(.2Y)
-13 + 27 = 2Y, 14 = 2Y, 7 = Y

12) 17Q - 14XQ = 11Q
Q(17 - 14X) = Q(11)
17 - 14X = 11, -14X = -6, X = 3/7

13) D(3 - 7) - 12 = 0
3D - 7D - 12 = 0
-4D = 12, D = -3

14) $(6^2 \div 9) \times 2 - 9Y = 8(Y - 4 + 9)$
$(36 \div 9) \times 2 - 9Y = 8(Y + 5)$
4 x 2 - 9Y = 8Y + 40
8 - 9Y = 8Y + 40, -32 = 17Y, -1 15/17 = Y

15) 2 = 2, 4 = 2 x 2, 7 = 7,
so LCM = 2 x 2 x 7 = 28

$$\overset{14}{\cancel{(28)}}\frac{9}{\cancel{2}} = \overset{7}{\cancel{(28)}}\frac{5}{\cancel{4}}R + \overset{4}{\cancel{(28)}}\frac{17}{\cancel{7}}$$

126 = 35R + 68, R = 1 23/35

16) 100(.35P) + 100(3.2) = 100(-4P)
35P + 320 = -400P
435P = -320, P = -.74 (rounded) or -64/87

17) 75% = $\underline{.75} = \frac{75}{100} = \frac{3}{4}$

18) 113% = $\underline{1.13} = \frac{113}{100} = 1\frac{13}{100}$

19) $\frac{2}{5} = \frac{40}{100} = \underline{.40} = \underline{40}\%$

20) AB + AB

5E

1) (3, 3)

2) (4, -2)

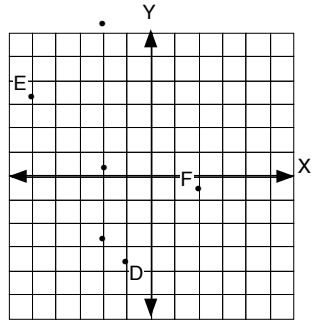
3) (-5, 5)

4) see graph

5) see graph

6) see graph

7) analytic



8) negative, negative

9) same X coordinate

10) X, -2

11) 100(1.08V) = 100(.7) - 100(.24)
108V = 70 -24, 108V = 46,
V = .43 (rounded) or V = 23/54

12) $9X^2M = 10X^2 - 19X^2$
$X^2(9M) = X^2(10-19)$, 9M = -9, M = -1

13) $(11 - 4)^2 \div 7 - |3 - 9| = 14(R + 3R - 2R + 1)$
$7^2 \div 7 - |-6| = 14(2R + 1)$
49 ÷ 7 - 6 = 28R + 14
1 = 28R + 14, -13 = 28R, R = -13/28

14) $6\,[8 - (Y + 4)\,] = 3\,[\,(10 + 1)^2 - (7 - 5 + 4)$
$6\,[\,8 - Y - 4\,] = 3\,[11^2 - 6\,]$
24 - 6Y = 345, -6Y = 321, Y = -53 1/2

15) 2 = 2, 7 = 7, 8 = 2 x 2 x 2
so LCM = 2 x 2 x 2 x 7 = 56

$$\overset{7}{\cancel{(56)}}\frac{25}{\cancel{8}} - \overset{8}{\cancel{(56)}}\frac{11}{\cancel{7}} = \overset{28}{\cancel{(56)}}\frac{3}{\cancel{2}}\,D$$

175 - 88 = 84D, D = 1 3/84 = 1 1/28

16) 1000(-1.203H) + 1000(.9) = 1000(-.6)
-1203H + 900 = -600, -1203H = -1500
H = 1 297/1203 or 1.25 (rounded)

17)

$$\begin{array}{r} .125 \text{ or } .13 \\ 8\overline{)1.000} \\ \underline{8} \\ 20 \\ \underline{16} \\ 40 \\ \underline{40} \end{array}$$

18)

$$\begin{array}{r} .66\overline{6} \text{ or } .67 \\ 3\overline{)2.000} \\ \underline{18} \\ 20 \\ \underline{18} \\ 20 \\ \underline{18} \end{array}$$

19)

$$\begin{array}{r} .6 \\ 5\overline{)3.0} \\ \underline{30} \end{array}$$

20)

$$\begin{array}{r} .2\overline{2} \text{ or } .22 \\ 9\overline{)2.00} \\ \underline{18} \\ 20 \\ \underline{18} \end{array}$$