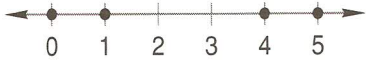
problem set 111

1. $N_N = 15$; $N_D = 10$; $N_Q = 3$ **2.** $N_B = 2$; $N_G = 3$; $N_Y = 5$ **3.** 12

4. $-5, -4, -3$ and $8, 9, 10$ **5.** 400 **6.**

7.

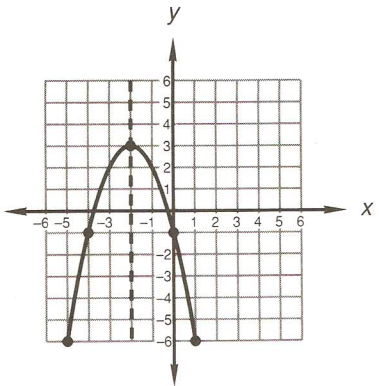


8. $x + 2x^{1/2}y^{1/4} + y^{1/2}$

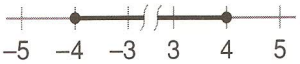
9. $x - 2x^{1/2}y^{-1/2} + y^{-1}$ **10.** xy^{-1} **11.** $(x - m^2y^2)(x^2 + xm^2y^2 + m^4y^4)$

12. $(2x^2y - 3mp^4)(4x^4y^2 + 6x^2ymp^4 + 9m^2p^8)$ **13.** $\frac{10{,}111}{9900}$

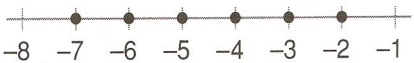
14. $y = -(x + 2)^2 + 3$



15.



16.



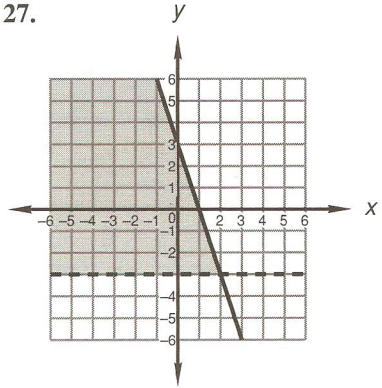
17. $(-10, 10)$

18. $(2, 4, 6)$

19. $\left(\frac{1}{2} + \frac{\sqrt{7}}{2}, -\frac{1}{2} + \frac{\sqrt{7}}{2}\right), \left(\frac{1}{2} - \frac{\sqrt{7}}{2}, -\frac{1}{2} - \frac{\sqrt{7}}{2}\right)$ **20.** $\frac{5}{2}, -1$

21. $\frac{40(2.54)(60)(60)}{100}\frac{\text{m}}{\text{hr}}$ **22.** $\frac{3}{7} - \frac{2}{7}i$ **23.** $\frac{6 + 4\sqrt{3}}{3}$ **24.** $a^{-5x/2}y^{1+3x/2}$

25. $x^{3/2}y$ **26.** $\frac{65\sqrt{14}}{14}$ **27.**



28. $8.14R + 14.14U = 16.32\angle 60.07°$

29. $\frac{5}{2}, -2$

30. $0, -\frac{3}{2}, 5$