Name _____

Algebraic Atrocities

Statement	True or False	Correction

1. $\dfrac{3}{a} + \dfrac{3}{b} = \dfrac{3}{a+b}$ _____   _____

2. $\dfrac{a+b}{c+d} = \dfrac{a}{c} + \dfrac{b}{d}$ _____   _____

3. $\dfrac{a+b}{c} = \dfrac{a}{c} + \dfrac{b}{c}$ _____   _____

4. $\dfrac{a}{b+c} = \dfrac{a}{b} + \dfrac{a}{c}$ _____   _____

5. $\dfrac{10t+u}{10u+v} = \dfrac{t}{v}$ _____   _____

6. $\dfrac{a}{b} = \dfrac{a^2}{b^2}$ _____   _____

7. $\dfrac{a+b}{b} = a$ _____   _____

8. $\dfrac{1}{a+b} + (a+b)^2 = a+b$ _____   _____

9. $2a^{-1} = \dfrac{-1}{2a}$ _____   _____

10. $a^{-2} = -a^2$ _____   _____

11. $(a-b)^2 = a^2 - b^2$ _____   _____

12. $(a+b)^2 = a^2 + b^2$ _____   _____

13. $(a+b)^3 = a^3 + b^3$ _____ _____

14. $\sqrt{a^2} = a$ _____ _____

15. $\sqrt{a^2 + b^2} = a + b$ _____ _____

16. $\sqrt{a^2 - b^2} = a - b$ _____ _____

17. $\sqrt{a+b} = \sqrt{a} + \sqrt{b}$ _____ _____

18. $\frac{1}{3}(-6)^3 = -2^3$ _____ _____

19. $a^{\frac{2}{3}} = \frac{a^2}{a^3}$ _____ _____

20. $\frac{\sin a}{a} = \sin(1)$ _____ _____

21. $\frac{\sin 2a}{a} = \sin(2)$ _____ _____

22. $\sin(2A) = 2\sin(A)$ _____ _____

23. $\sin(A+B) = \sin(A) + \sin(B)$ _____ _____

24. $\cos(2A) = 2\cos(A)$ _____ _____

25. $\cos(A+B) = \cos(A) + \cos(B)$ _____ _____

26. $\log(a+b) = \log(a) + \log(b)$ _____ _____

27. If $a+b=0$, then either $a=0$ or $b=0$ _____ _____

28. If x(x-2)=24, then either $x=24$ or $x-2=24$ _____ _____

29. $a(bc) = (ab)(ac)$ _____ _____

30. If $\log(a) = b$, then $a = \frac{b}{\log}$ _____ _____

31. If $\sin(a) = b$, then $a = \dfrac{b}{\sin}$ _____   _____
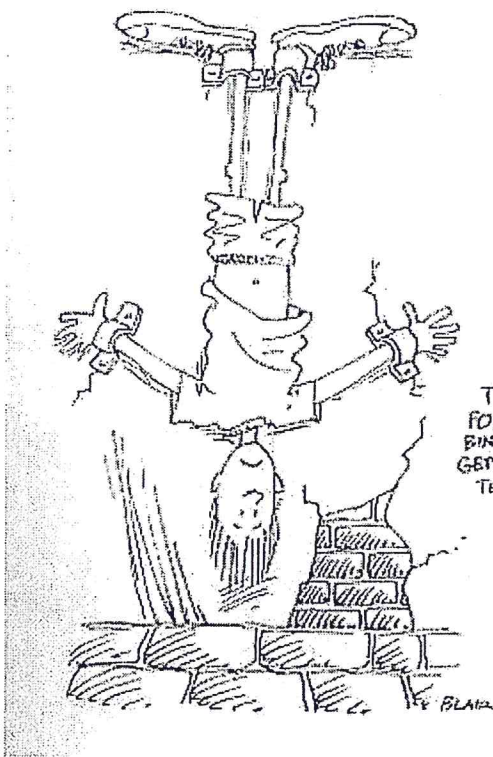
32. If $\cos(a) = b$, then $a = \dfrac{b}{\cos}$ _____   _____

33. If $\tan(a) = b$, then $a = \dfrac{b}{\tan}$ _____   _____

34. $Sin^{-1}(x) = \dfrac{1}{\csc(x)}$ _____   _____

35. $Tan^{-1}(x) = \dfrac{1}{\cot(x)}$ _____   _____

36. $Cos^{-1}(x) = \dfrac{1}{\sec(x)}$ _____   _____

37. $Sin^{-1}(x) = \dfrac{1}{\sin(x)}$ _____   _____

THE PENALTY FOR SQUARING A BINOMIAL AND FORGETTING THE MIDDLE TERM

BLAIR