

Name _____

Algebraic Atrocities

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Revised by David Pleacher

Statement	True or False	Correction
1. $\frac{3}{a} + \frac{3}{b} = \frac{3}{a+b}$	_____	_____
2. $\frac{a+b}{c+d} = \frac{a}{c} + \frac{b}{d}$	_____	_____
3. $\frac{a+b}{c} = \frac{a}{c} + \frac{b}{c}$	_____	_____
4. $\frac{a}{b+c} = \frac{a}{b} + \frac{a}{c}$	_____	_____
5. $\frac{10t+u}{10u+v} = \frac{t}{v}$	_____	_____
6. $\frac{a}{b} = \frac{a^2}{b^2}$	_____	_____
7. $\frac{a+b}{b} = a$	_____	_____
8. $\frac{1}{a+b} + (a+b)^2 = a+b$	_____	_____
9. $2a^{-1} = \frac{-1}{2a}$	_____	_____
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 $a = \frac{b}{\sin}$

32. If $\cos(a) = b$, then $a = \frac{b}{\cos}$

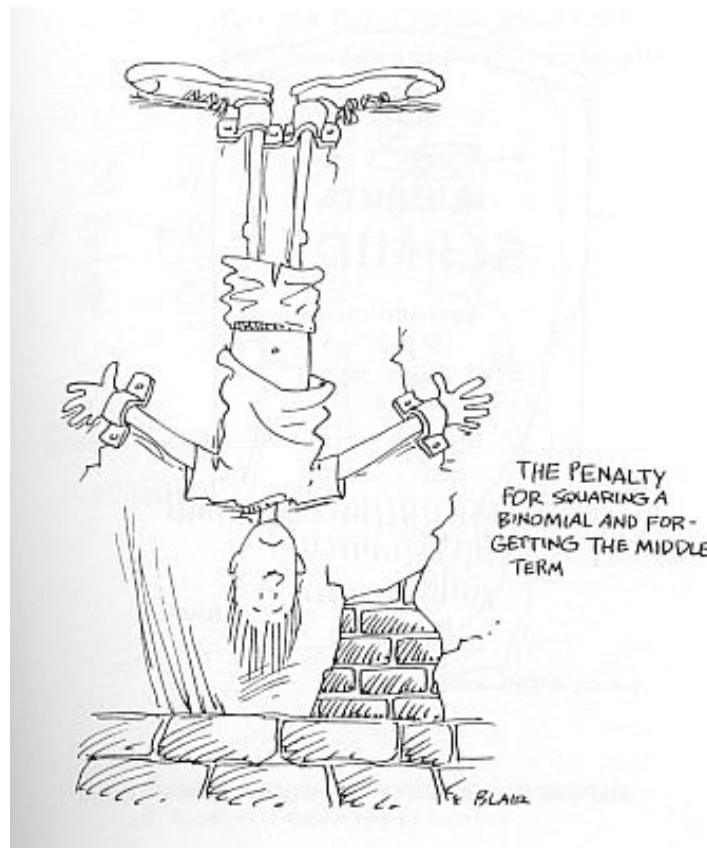
33. If $\tan(a) = b$, then $a = \frac{b}{\tan}$

34. $\text{Sin}^{-1}(x) = \frac{1}{\text{csc}(x)}$

35. $\text{Tan}^{-1}(x) = \frac{1}{\text{cot}(x)}$

36. $\text{Cos}^{-1}(x) = \frac{1}{\text{sec}(x)}$

37. $\text{Sin}^{-1}(x) = \frac{1}{\sin(x)}$



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