

0.2: Algebraic Atrocities

True or False? If false, correct the right side of the equation or provide a counter-example.

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. $\frac{5x+1}{5x+7} = \frac{1}{7}$

6. $\frac{a}{b} = \frac{a^2}{b^2}$

7. $\frac{a+b}{b} = a$

8. $\frac{1}{x-2} + (x-2)^2 = x-2$

9. $2x^{-1} = \frac{1}{2x}$

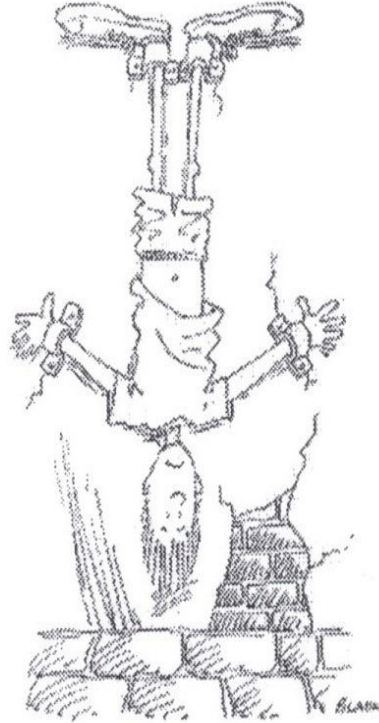
10. $a^{-2} = -a^2$

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



This is the
penalty for
squaring a
binomial and
forgetting the
middle term!