

Math 1303 - Math in the Liberal Arts

Homework #5 - 2005.10.18

Due Date - 2005.10.26

Determine if the following equations are generally true or not. If they are NOT true, find values (if possible) for the unknown variables which will make the equation true.

1. $\frac{a}{b} \frac{a}{c} = \frac{a}{b \cdot c}$

2. $\frac{a}{b} + \frac{c}{d} = \frac{a \cdot d + b \cdot c}{b \cdot d}$

3. $1 + \frac{a}{b} = \frac{a + b}{b}$

4. $1 + \frac{a}{b} = \frac{a}{a + b}$

5. $a \cdot (b + c) - b = a \cdot c$

6. $\frac{a + b}{a - b} = 1 + \frac{2b}{a - b}$

7. $a + \frac{1}{\frac{1}{a}} = 2a$

8. $\frac{a}{a + b} = \frac{1}{b}$

9. $\frac{c \cdot a}{c \cdot a + b} = \frac{a}{a + b}$

10. $(a + b)^2 = a^2 + b^2$