1. $\frac{3}{x(x+1)}-1=\frac{3}{x^{2}+x}$
2. $\frac{2(x+4)}{x-4}= \frac{3x}{x-4}$
3. Identify the horizontal asymptote(s) of $\frac{2x}{x^{2}-4}$
4. Identify the vertical asymptote(s) of $\frac{2x}{x^{2}-4}$
5. If a function is odd and contains the point (4, 10), what other point must the function contain?
6. The volume V of a gas varies inversely as the Pressure P and directly as the temperature T. A certain gas has a volume of 10 liters (L), a temperature of 300 Kelvin (K), and a pressure of 1.5 atmospheres (atm). If the gas is compressed to a volume of 7.5 L and is heated to 350 K, what will the new pressure be?
7. Which of the following statements describes an odd function?

a)  b)  c)  d. 

1. Evaluate (4x2 + 4x)(9x5 + 12x4 -23x3 – 16x2 + 7x - 16), and give the 3rd term.
2. Evaluate (4x2 + 4x)(9x5 + 12x4 -23x3 – 16x2 + 7x - 16), and give the leading coefficient.
3. Suppose we have N(2,2). What is P(x < 2)?
4. $\frac{x^{2}+3x-28}{(x+7)(x-4)}=$-11
5. $\frac{x^{2}+2x+1}{x^{2}-3x-18}÷\frac{x^{2}-1}{x^{2}-7x+6}$
6. $\frac{4x^{2}-20x+25}{x^{2}-4x}∙\frac{3x-12}{2x-5}$
7. $\frac{\frac{2}{x}+\frac{x}{4}}{\frac{x+1}{x}}$
8. $\frac{\frac{2}{x}+\frac{1}{x}}{\frac{2x}{x+2}}$

Identify any x values for which the following expressions are undefined:

1. $\frac{x+7}{x^{2}+13x+42}-\frac{10x}{x^{2}+8x+7}$
2. $\frac{3x-4}{4x+5}+\frac{5x+3}{4x+5}$
3. Find the zeroes of the function f(x) = $\frac{x^{2}-2x-3}{x^{2}-3x}$
4. Find the horizontal asymptote of the function f(x) = $\frac{x^{2}-2x-3}{x^{2}-3x}$
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