

**QUIZ 6 – Math 105 – Fall 2007**  
**Pietro Poggi-Corradini**

1.  $f(x) = x - 4, g(x) = |x + 4|, g \circ f(x) =$

2. Find the inverse of  $y = \frac{x - 2}{x + 2}$

3. What is the leading term in  $P(x) = (x - 2)(1 - x)$ ?

4. How does  $P(x) = (x - 3)(x + 2)(3x - 2)$  behave for  $x \sim 3$ ?

5. Sketch  $P(x) = (2x - 1)(x + 1)(x + 3)$  on back **(label it #5)**.

6. Find the vertical asymptotes for  $y = \frac{1 - 2x}{2x + 3}$

7. Find the horizontal asymptotes of  $\frac{4 - 3x}{x + 7}$

8. Sketch  $y = \frac{x + 1}{x - 1}$  on back **(label it #8)**.

9. Find the  $x$ -intercepts for  $y = \frac{(x - 1)(x + 2)}{(x + 1)(x - 3)}$

10. Find the  $y$ -intercept for  $y = \frac{2x^2 + 2x - 4}{x^2 + x}$