For comments, corrections, etc…Please contact Ahnaf Abbas: ahnaf@mathyards.com

Remainder Theorem - Tutoring Sheet #2

1. Find the remainder of division in each of the following

a. $x^3 - 3x + 7$ by $x - 3$

b. $x^4 - 2x^2 - 9x + 18$ by $x + 3$

c. $x^2 + 3$ by $2x - 3$

2. Find the remainder R by long division and by the remainder theorem:

$$(2x^4 - 10x^2 + 30x - 60) \div (x + 4)$$

3. Use the factor theorem to decide if $(x - 2)$ is a factor of

$f(x) = 2x^5 - 2x^4 + 3x^3 - 6x^2 - 4x + 8$.

4. Let $f(x) = x^3 - 7x + 6$. Solve the equation $f(x) = 0$

5. Solve the equation $f(x) = 4x^3 + 3x - 18 = 0$