

- i. Show all relevant work. No work, no credit.
- ii. Write your answers in the spaces provided on the right.
- iii. Staple when you turn in the assignment.
- iv. Due Wednesday, October 29 at the beginning of the class.

**Find all zeros.**

1)  $f(x) = x^3 - x^2 + 4x - 4$

2)  $f(x) = x^3 + 5x^2 + 6x - 12$

$$3) f(x) = x^4 + 2x^3 + 6x^2 + 18x - 27$$

**Use the given zero to find the remaining zeros of the function.**

$$4) f(x) = x^3 + 6x^2 - 14x + 16; \text{ zero: } 1 + i$$

$$5) f(x) = x^3 + 5x^2 + 7x - 13; \text{ zero: } -3 + 2i$$