Name: _____

Evaluating Polynomial Functions

A) Evaluate each function at the specified values.

1) $f(x) = 3x^6 + 2x^2 - 7x + 15$; $x = 1$

2) $f(x) = x^5$; $x = -3$

_____   _____

B) Evaluate each function.

1) $f(x) = x^4 - 4x + 10$; find $f(4)$

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

_____   _____

C) If $f(x) = -x^3 - 8x^2 - 9x + 12$; find the following.

1) $f(3)$ = _____

2) $f(-9)$ = _____

3) $f(-7)$ = _____

4) $f(0)$ = _____

D) If $f(x) = -x^4 + 5x^3$; find the following.

1) $f(7) + 3f(5)$ = _____

2) $f(-3) - 7f(-2)$ = _____

3) $-f(1) \times f(4)$ = _____

4) $-\dfrac{f(-6)}{f(6)}$ = _____

E) What is the value of $f(3)$, if $f(x) = x^6 - 14$?

i) 715   ii) 734   iii) −710   iv) −725