

Name _____

Homework 15
Section 3.2

1. (5) Find the *exact* solutions to $x^3 + 16x = 5 + 8x^2$.

2. (5) Find the *exact* solutions to $x^4 - 5x^2 + 6 = 0$. *Hint: note that $x^4 = (x^2)^2$.*

3. (5) Determine the value of b so that $x - 2$ is a factor of $p(x) = 3x^3 + (b - 2)x^2 - 4bx - 4$.

4. (5) Given that $x = 1$ and $x = -2$ are two solutions to $x^4 + x^3 - 7x^2 - 5x + 10 = 0$, find the *exact* values of the remaining solution(s).