

MATH 356, HOMEWORK 6

**Due:** Thursday, October 28 in class.

**4.3:** 2, 4, 6, 22

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**Problem 6A.** Find all solutions to the congruence

$$7x^4 + 9x^3 + 2x + 9 \equiv 0 \pmod{3375}.$$

Hint: there are 8 solutions.

**Problem 6B.** Find all solutions to the congruence

$$2x^4 - 3x^3 - 9x^2 - x + 10 \equiv 0 \pmod{214375}.$$

Hint: there are 4 solutions.

Please STAPLE your sheets!!