Name: _____
MATH 101
Fall 2022
HW 23: Due 12/12

Problem 1. (10pt) Solve the following equations:

(a) $(x + 6)(x - 12) = 0$

(b) $x^2 + 15x + 56 = 0$

(c) $81 - x^2 = 0$

(d) $9x = x^2 - 36$

(e) $6x^2 = x + 2$

Problem 2. (10pt) Showing all your work, factor the following polynomial: $8x^2 + 34x - 30$

Problem 3. (10pt) Use the quadratic equation to factor the following polynomial: $120x^2 + 234x - 165$