

Due Friday, August 27, 2021. DO NOT USE A CALCULATOR.

Problem 1. Find the quotient and the remainder. Show all steps.

$$12 \overline{)15217}$$

Problem 2. Find the decimal expansion of the fraction. Show all steps.

$$\frac{145}{11}$$

Problem 3. Find a fraction which equals the decimal expansion. Show work.

$$24.73\overline{52}$$

Problem 4. Find all x (real or complex) which satisfy the equation.

(a) $8x - 7 = 39$ (It's linear.)

(b) $x^2 + 5 = 0$ (Extracting roots.)

(c) $7x^2 - 18 = 5x^2 + 3$ (Extracting roots.)

(d) $x^2 - 10x + 9 = 0$ (Factoring.)

(e) $x^2 - 3x - 88 = 0$ (Factoring.)

(f) $x^2 - 6x - 2 = 0$ (Complete the square.)

(g) $3x^2 + 6x - 2 = 0$ (Complete the square.)