Exercise 1: **(2 ptos)** Solve the following equations:

a) $5x - (2x - 3) = 5(4x - 9) - x$ (0.5)

b) $7(3x - 2) - 5(2x - 3) = 7x - 4(1 - x)$ (0.75)

c) $\dfrac{3x - 1}{5} - \dfrac{x - 3}{2} = 1 - \dfrac{5x + 2}{4}$ (0.75)

Exercise 2: **(1 pto)** The price of a kilo of bananas is 3€ less than the price of a kilo of strawberries. If I buy 2 kilos of bananas and 4 kilos of strawberries I have to pay 21€. Find the price of each product.

Exercise 3: **(2 ptos)** Solve the following second degree equations without using the formula:

a) $5x^2 + 10x = 0$ b) $3x^2 - 75 = 0$

c) $81x^2 - 49 = 0$ d) $12x^2 - 3x = 0$

Exercise 4: **(2 ptos)** Solve the following second degree equations:

a) $x^2 + 9x + 8 = 0$ b) $x^2 - 2x - 15 = 0$

c) $3x^2 + x - 10 = 0$ d) $x^2 - 8x + 16 = 0$

Exercise 5: **(1 pto)** Expand using quadratic multiplication formulas:

a) $(x - 7)^2 =$ $(2y - 3)(2y + 3) =$ $(3x^5 - x^3)^2 =$

Exercise 6: **(2 ptos)** Solve the following equations:

a) $\dfrac{x - 2}{x} = \dfrac{3}{x + 2}$

b) $(x - 3)^2 - x = 2x - 11$