

King Fahd University of Petroleum and Minerals
Prep-Year Math Program
Math 001—Term 061
Recitation (1.3&1.4)

Question1:

Solve the following equations:

a) $\sqrt{2x+3} - \sqrt{x+1} = 1$

b) $5(x^2 + 1)^{-2} = 4(x^2 + 1)^{-1} + 1$

c) $3 + \frac{5}{x^2 + 1} = \frac{2}{(x^2 + 1)^2}$

d) $(5x^2 - 6)^{\frac{1}{4}} = x$

Question2:

Find all values of k such that the equation $-3x^2 + 2x + k = 1$ has no real solution.

Question3:

Find all values of k for which the following equation has only one solution:

$$kx^2 + 2(k+4)x + 25 = 0$$

Question4:

Find the quadratic equation that has 2 and 3 as solutions
