Sheet (2)

1- **Sketch and find domain and rang**

a)
  - $Y = x^2 + 4x$
  - $Y = x^2 - 2x + 2$
  - $Y = 6x - 10 - x^2$
  - $Y = 2x^2 - 8x + 9$

b)
  - $Y = \dfrac{4}{x-3}$
  - $Y = \dfrac{3x + 6}{X + 3}$
  - $Y - 3 = \dfrac{1}{X + 4}$

c)
  - $Y = -2\sqrt{x + 1}$
  - $Y = -2\sqrt{x}$
  - $Y = 2\sqrt{x + 2} - 3$
  - $Y = \sqrt{x} + 2$
  - $Y = \sqrt{x} - 4$

d)
  - $Y = |x - 2| - 4$
  - $Y = |x + 1|$
  - $Y = |x| + 2$
  - $Y = |x + 1| + 3$
  - $Y = -|x - 2| + 4$
  - $Y = |x - 1| - 1$