

(C1-4.6a) Name:

## Homework Questions 6 – Transformation of Parabolas Graphs

The basic Parabola graph is  $y = x^2$  describe the transformation/s that has taken place to make the following graphs

a)  $y = -x^2$

Reflection in x axis

b)  $y = 3x^2$

3 times steeper

c)  $y = x^2 - 5$

Down 5

d)  $y = (x + 3)^2$

Left 3

e)  $y = \frac{1}{5}x^2$

1/5 times steeper

f)  $y = -(x - 2)^2$

Reflected in x axis and right 2

g)  $y = x^2 + 8$

Up 8

h)  $y = -6x^2 - 4$

Reflected in x axis, 6 times steeper and down 4

i)  $y = (x + 3)^2 + 2$

Left 3 and Up 2

j)  $y = -3(x - 4)^2 - 6$

Reflected in x axis, 3 times steeper, right 4 and down 6