NAME:_____ DATE: 02/17/2017

ASSIGNMENT: Transformations

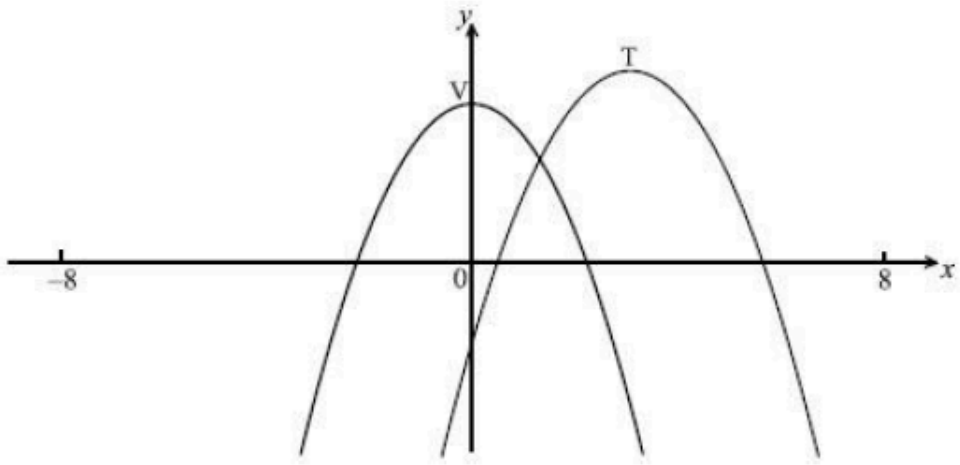
Horizontal Translation: f(x) --> f (x – h) Changes input value (thus horizontal change)
Vertical Translation: f(x) --> f(x) + k Changes output value (thus vertical change)

Y-axis Reflection: f(x) --> f(–x)
X-axis Reflection: f(x) --> –f(x)

Horizontal Stretch (>1) /Compression (<1): f(x) --> f($\frac{1}{b}$ x)
Vertical Stretch (>1) /Compression (<1): f(x) --> a·f(x)

75.) The following diagram shows part of the graph of $f(x) = 5 - x^2$ with vertex V (0, 5).

Its image $y = g(x)$ after a translation with vector $\begin{pmatrix} h \\ k \end{pmatrix}$ has vertex T (3, 6).



(a) Write down the value of

(i) h;

(ii) k.

(2)

(b) Write down an expression for $g(x)$.

(2)

(c) On the same diagram, sketch the graph of $y = g(-x)$.

(2)

(Total 6 marks)