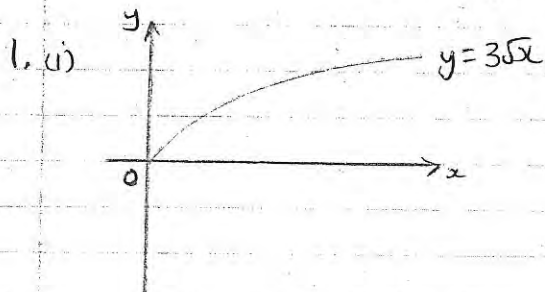
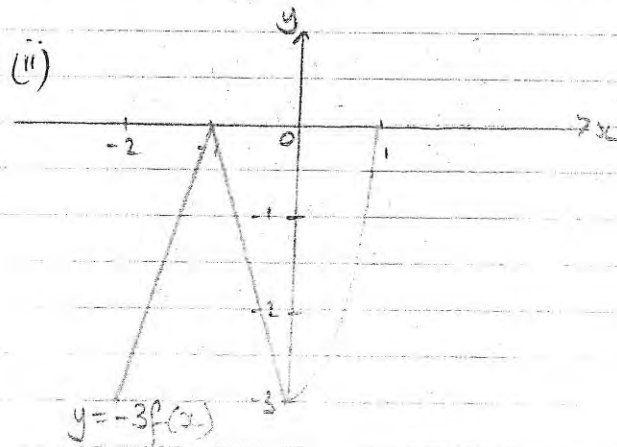
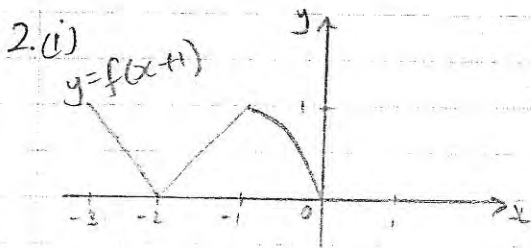


Transformations of Graphs (ch 10)

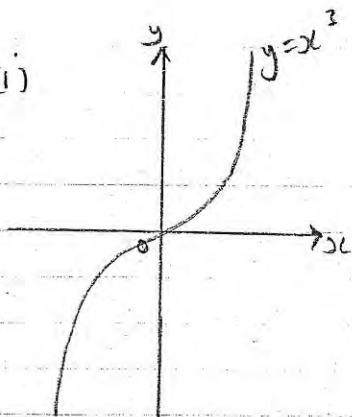


(ii) $y = 3\sqrt{x} \rightarrow$ stretch $S \neq 2$ in y-direction \rightarrow $y = 6\sqrt{x}$

(iii) $y = 3\sqrt{x} \rightarrow y = 3\sqrt{x-k}$ translation $\begin{pmatrix} k \\ 0 \end{pmatrix}$



3. (i)

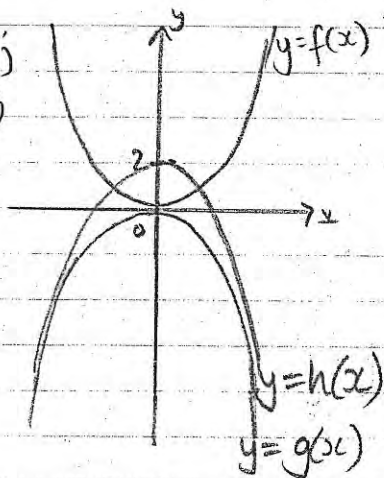


(ii) $y = x^3 \rightarrow y = -x^3$
reflection in the x-axis.

(iii) $y = (x-p)^3$

4. (i)

(ii)

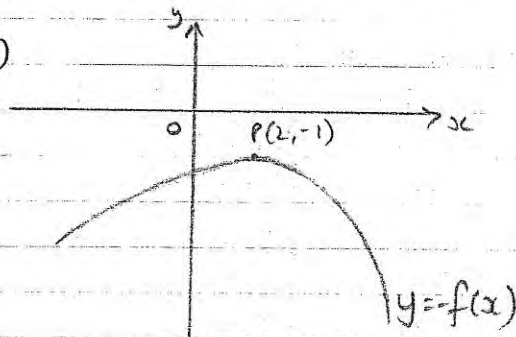


(iii) $g(x) = -f(x) = -x^2$
 $h(x) = -f(x) + 2 = -x^2 + 2$

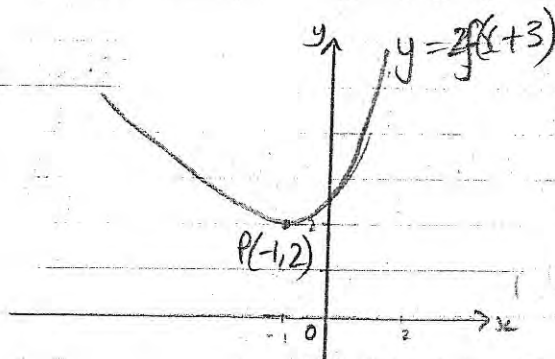
5. (i) $y = (x-4)^3$

(ii) $y = (\frac{1}{2}x)^3 - 3 = \frac{1}{8}x^3 - 3$

6. (i) (a)



(b)



(ii) $y = f(x) \rightarrow y = 2f(x+3)$

translation $\begin{pmatrix} -3 \\ 0 \end{pmatrix}$ and stretch SF 2
in y-direction.