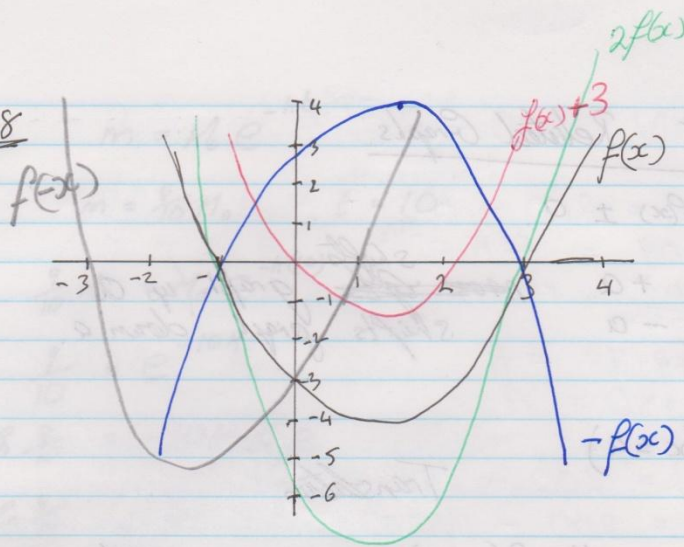


Ex 1.8

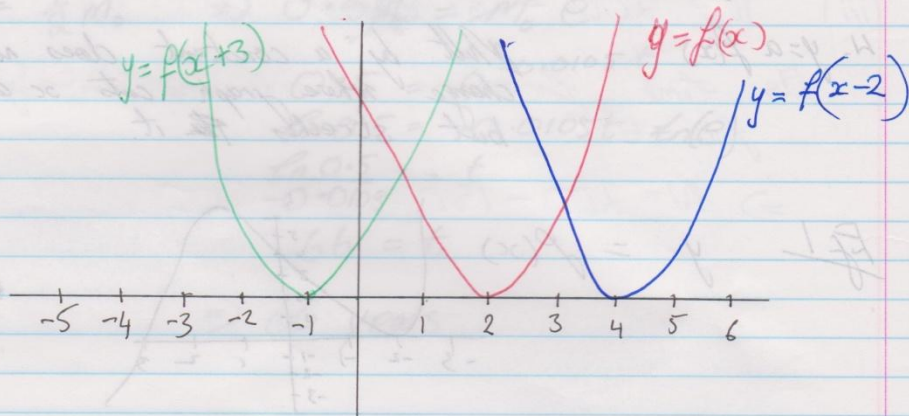
Q1



Q2 $g(x) = -f(x)$

$h(x) = f(x) + 3$

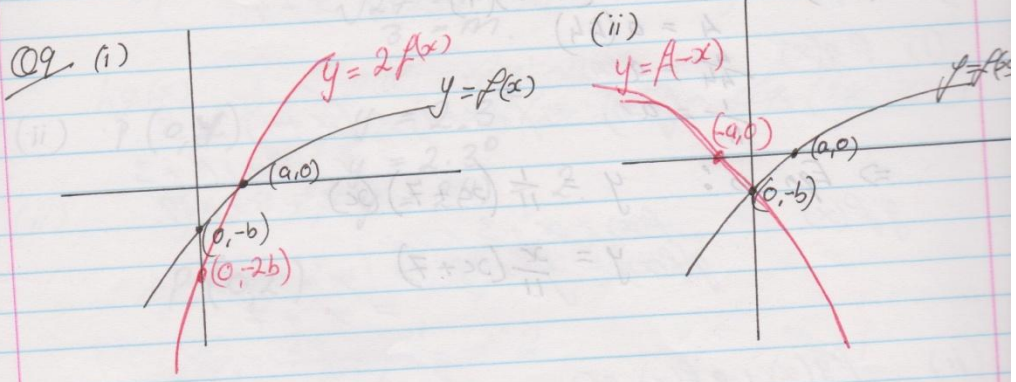
Q3



Q4 Graph (D)

Q6 $a > 0 \Rightarrow$ U shape $b^2 - 4ac > 0 \Rightarrow 2$ real roots

Graph (C)



Q7 (i) $\lim_{x \rightarrow 0} \frac{5x-4}{3+x} = \frac{5(0)-4}{3+0} = \frac{-4}{3}$

(ii) $\lim_{x \rightarrow 1} \frac{x^2-3x+2}{x-1} = \frac{1-3+2}{1-1} = \frac{0}{0}$
 $\frac{x^2-3x+2}{x-1} = \frac{(x-1)(x-2)}{x-1} = x-2 = -1$

(iii) $\lim_{x \rightarrow 4} \frac{x^3-64}{x^2-16} = \frac{64-64}{16-16} = \frac{0}{0}$
 $\frac{x^3-64}{x^2-16} = \frac{(x-4)(x^2+4x+16)}{(x-4)(x+4)} = \frac{x^2+4x+16}{x+4}$
 $\lim_{x \rightarrow 4} \frac{x^2+4x+16}{x+4} = \frac{16+16+16}{4+4} = \frac{48}{8} = 6$

Q12 Graph (A) $\Rightarrow y = \frac{1}{2}(x+2)^2 = \frac{1}{2}x^2 + x + 2$
 Graph (B) $\Rightarrow y = (x+1)^2 = x^2 + 2x + 1$
 Graph (C) $\Rightarrow y = 5x^2$
 Graph (D) $\Rightarrow y = 2x^2 - 10x + 12$
 $12 - 10x + 2x^2 = 0$
 $2x^2 - 10x + 12 = 0$
 $x^2 - 5x + 6 = 0$
 $(x-2)(x-3) = 0$
 $x = 2$ or $x = 3$