(show all your work and circle one letter to get a full mark or you will get zero)

3) The sum of the absolute maximum and the absolute minimum values of the function
$$f(x) = 2x^3 + 3x^2 - 12x \qquad \text{is}$$

(a)   45

(b)   -33

(c)   38

(d)   -7

(e)   35

(f)   none of the above

2)

The sum of all critical points of the function $f(x) = \dfrac{x^2 + 6}{\sqrt{4x-7}}$ is

(a)   49/12

(b)   19/4

(c)   10/12

(d)   5

(e)   3

(f)   none of the above

1) The sum of the absolute maximum and the absolute minimum values of the function
$$f(x) = \begin{cases} x2 - 4x & if \quad 0 \le x < 5 \\ -x + 10 & if \quad 5 \le x \le 6 \end{cases}$$

is

(a)   1

(b)   4

(c)   0

(d)   9

(e)   5

(f)   none of the above