

Soluzioni parte prima [A]

1. $\frac{2}{3}(1+x^2)+c(1+x^2)^{-1/2}$
2. -1
3. $\alpha < 3/2$
4. $\forall M > 0, \exists \delta > 0 : \forall x \in \text{Dom}f, 0 < x < \delta \Rightarrow f(x) > M$
5. f continua in $[a, b], f(a)f(b) < 0 \Rightarrow \exists \xi \in (a, b): f(\xi) = 0$
6. $[0, \pi/3) \cup (\pi/2, 3\pi/2) \cup (5\pi/3, 2\pi]$

Soluzioni parte prima [B]

1. $2(1+x^2)+c(1+x^2)^{1/2}$
2. 1
3. $\alpha > 3/2$
4. $\forall M > 0, \exists \delta > 0 : \forall x \in \text{Dom}f, -\delta < x < 0 \Rightarrow f(x) < -M$
5. Se ((i) $P(1)$ vera ; (ii) $\forall n, P(n)$ vera $\Rightarrow P(n+1)$ vera) allora $\forall n, P(n)$ vera
6. $(\pi/6, 5\pi/6) \cup (\pi, 2\pi)$