Let p, q $\in$ R. If $2-\sqrt{3}$ is a root of the quadratic equation, $x^2 + px + q = 0$, then:

(1) $p^2 - 4q + 12 = 0$ (2) $q^2 - 4p - 16 = 0$

(3) $q^2 + 4p + 14 = 0$ (4) $p^2 - 4q - 12 = 0$

(4) Since $2-\sqrt{3}$ is a root of the quadratic equation

$x^2 + px + q = 0$

$\therefore 2+\sqrt{3}$ is the other root

$$\Rightarrow x^2 + px + q = [x-(2-\sqrt{3})][x-(2+\sqrt{3})]$$

$$= x^2 - (2+\sqrt{3})x - (2-\sqrt{3})x + (2^2 - (\sqrt{3})^2)$$

$$= x^2 - 4x + 1$$

Now, by comparing $p = -4$, $q = 1$

$\Rightarrow p^2 - 4q - 12 = 16 - 4 - 12 = 0$