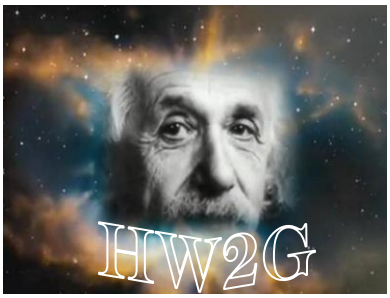
Find the sum and product of the roots of the given equation.



1) $4x^2 - 3x + 6 = 0$

2) $6x^3 - 9x^2 + x = 0$

3) $3x^3 + 5x^2 - x - 2 = 0$

4) $x^4 - 4x^2 = 5$

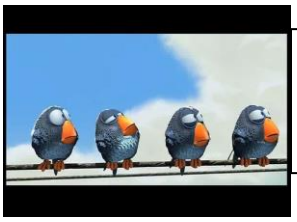
Find a *quadratic* equation with integral coefficients that has the given roots.

5) $1 \pm i$

6) $4 \pm \sqrt{3}$

7) $3 \pm \sqrt{2}$

8) $\frac{1 \pm i\sqrt{2}}{3}$



9) Bonus round: A cubic equation with integral coefficients has no quadratic term. If one root is $2 + i\sqrt{5}$, what are the other roots?

Find a *cubic* equation with integral coefficients that has the given roots.

10) 2 and $4 + i$

11) 3 and $7 - i$

12) -1 and $\frac{4 + i\sqrt{3}}{2}$

13) 5 and $i\sqrt{2}$

1) 3/4 and 3/2
2) 3/2 and 0
3) -5/3 and 2/3
4) 0, -5
5) $x^2 - 2x + 2 = 0$
6) $x^2 - 8x + 13 = 0$
7) $x^2 - 6x + 7 = 0$
8) $3x^2 - 2x + 1 = 0$
9) -4 and $2 - i\sqrt{5}$
10) $x^3 - 10x^2 + 33x - 34 = 0$
11) $x^3 - 17x^2 + 92x - 150 = 0$
12) $4x^3 - 12x^2 + 3x + 19 = 0$
13) $x^3 - 5x^2 + 2x - 10 = 0$