VD unit 2 topic 5

Given

(1) degrees of f(x)

(2) zeros

(3) y-intercept (or) a point that f(x) passes through

Find the function f(x)

$\deg(f)$	zeros	y-int or a point that f(x) passes through	f(x)
4	$1,\ -\frac{1}{2},\ 2i$	$f(0)=8$	$-2(2x^4-x^3+7x^2-4x-4)$
4	$2-i$, $3-2i$	$f(0)=13$	$\frac{1}{5}(x^4-10x^3+42x^2-82x+65)$
4	$1+i\sqrt{3}$, 0 , -2	$f(-1)=4$	$-\frac{4}{7}(x^4+8x)$
4	$2-i$, $\frac{1}{2}+i$	$f(0)=5$	$\frac{1}{5}(4x^4-20x^3+41x^2-40x+25)$
4	$\frac{1}{4}-\frac{\sqrt{3}}{4}i$, $\frac{\sqrt{3}}{2}-i$	$f(0)=14$	$2(16x^4-(8+16\sqrt{3})x^3+(32+8\sqrt{3})x^2-(14+4\sqrt{3})x+7)$
4	$3-i$, 2 , $\frac{3}{2}$	$f(0)=-6$	$-\frac{1}{10}(2x^4-19x^3+68x^2-106x+60)$
4	0 , -1 $2+i$	$f(1)=6$	$\frac{3}{2}(x^4-3x^3+x^2+5x)$
4	$-\frac{2}{3}$, $3,\ i$	$f(0)=6$	$-(3x^4-7x^3-3x^2-7x-6)$