Algebra II Semester 1 Review part 1 – Solving

Solve each problem under the domain of complex numbers.

1. $3(x-5)=6-2(x+1)+x$
2. $x^2-6x-72=0$
3. $x^2+10=0$
4. $x^2=8$
5. $x^2+2x=4$
6. $x^3-8=0$
7. $x^2+4x+15=0$
8. $\dfrac{x-4}{3}=\dfrac{2x-5}{2}$
9. $2(x-3)^2-10=80$
10. $x^3+4x^2-x-4=0$
11. $12x^3-8x^2-3x+2=0$
12. $x^3+9x^2+19x+10=0$
13. $3x^4-10x^3-24x^2-6x+5=0$
14. $\begin{aligned}2x-4y&=-8\\3x-y&=12\end{aligned}$
15. $\begin{aligned}x^2+y^2&=16\\y&=x\end{aligned}$
16. $\begin{aligned}2x-3y&=16\\5x-4y&=7\end{aligned}$
17. $\begin{aligned}-4x+4y+4z&=-16\\-2x+5y+5z&=-14\\-3x-2y+z&=-5\end{aligned}$