

The deadline for all homework assignments is the one specified in Archie before 11:59 pm. As discussed in class, It must be correctly uploaded in order to be graded. Show all your work and justifications.

For Exercises 11–18, solve the equation.

11. $75y^3 + 100y^2 - 3y - 4 = 0$

14. $5m^4 - 5 = 0 \quad \{\pm i, \pm 1\} \quad \left\{ \pm \frac{1}{5}, -\frac{4}{3} \right\}$

17. $3n^2(n^2 + 3) = 20 - 2n^2$

$$\left\{ \pm \frac{2\sqrt{3}}{3}, \pm i\sqrt{5} \right\}$$

13. $2x^4 - 32 = 0 \quad \{\pm 2i, \pm 2\}$

12. $98t^3 - 49t^2 - 8t + 4 = 0 \quad \left\{ \pm \frac{2}{7}, \frac{1}{2} \right\}$

15. $2x^4 = -128x \quad \{0, -4, 2 \pm 2i\sqrt{3}\}$

18. $2y^2(y^2 - 2) = 18 + y^2$

$$\left\{ \pm \frac{3\sqrt{2}}{2}, \pm i\sqrt{2} \right\}$$

16. $10x^5 = -1250x^2 \quad \left\{ 0, -5, \frac{5 \pm 5i\sqrt{3}}{2} \right\}$