# The Weekly Rigor

## 20 Problems in Solving Equations
(Part 1)

PROBLEMS

For each of the following equations, find all solutions for the unknown variable.

1. $2x^2 + 15x + 18 = 0$.

2. $-2x^2 + 6x = 0$.

3. $3x^2 + 6x + 4x + 8 = 0$.

4. $2n^3 + 2n = 0$.

5. $6x^3 - 6x^2 - 2x^2 + 2x = 0.$

6. $12x^3 - 8x^2 - 24x + 16 = 0.$

7. $\theta^2 - 25 = 0.$

8. $\alpha(\alpha + 7) + 3(\alpha + 7) = 0.$