Preface

Here are a set of problems for my Algebra notes. These problems do not have any solutions available on this site. These are intended mostly for instructors who might want a set of problems to assign for turning in. I try to put up both practice problems (with solutions available) and these problems at the same time so that both will be available to anyone who wishes to use them.
Graphing

For problems 1 – 7 construct a table of at least 4 ordered pairs of points on the graph of the equation and use the ordered pairs from the table to sketch the graph of the equation.

1. \( y = \frac{1}{2}x + \frac{3}{2} \)
2. \( y = 4 - x \)
3. \( y = 3x^2 \)
4. \( y = (x + 3)^2 \)
5. \( y = \sqrt{x + 2} \)
6. \( y = |x| \)
7. \( y = x^3 \)

For problems 8 – 18 determine the \( x \)-intercepts and \( y \)-intercepts for the equation. Do not sketch the graph.

8. \( y = \frac{7}{3}x + 2 \)
9. \( 6y + 11x = -2 \)
10. \( y = 10x^2 \)
11. \( y = x^2 - 10x + 25 \)
12. \( y = 16x^2 - 8x + 17 \)
13. \( y = -x^2 - 25x - 24 \)
14. \( y = 2x^2 - 6x + 7 \)
15. \( y = -4x^3 - 3 \)
16. \( y = 6x^3 + 48 \)
17. \( y = |x + 4| - 7 \)

18. \( y = 4 - \sqrt{x - 2} \)