1. Ungraph these parabolas. That is, find an equation of form \( y = ax^2 + bx + c \) for each one. It’s best to search the graphs for points with integer coordinates from which you can work:

(a) The solid parabola’s equation.
(b) The skimpy parabola’s equation.

2. Ungraph these parabolas as in problem 1:

(a) The solid parabola’s equation.
(b) The skimpy parabola’s equation.
(c) Find the solid parabola’s exact \( x \)-intercepts.
(d) Find the skimpy parabola’s \( y \)-intercept.

3. Find a formula of form \( f(x) = ax^2 + bx + c \) for \( f \) if we know that \( f_{max} = 8 \) and \( f(0) = f(6) = 0 \).
Recall $NQ$ from our previous assignment. Compute and simplify $NQ$ for the following functions. Note that none of the answers is 1.

(a) $f(x) = 5 - 3x$
(b) $f(x) = 5 - 3x + 4x^2$
(c) $f(x) = 5 + 3x - 4x^2$