Show all relevant work!

YOU MAY USE A CALCULATOR TO VERIFY SOLUTIONS, BUT NOT TO PROVIDE THEM.

1. Solve:

(a) $x^2 = 5x + 14$ (b) $16x^2 - 25 = 0$ (c) $\frac{x^2}{5} - \frac{x}{2} = -\frac{1}{5}$

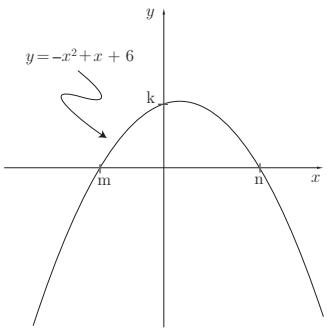
2. Write a quadratic equation for which $x = -4$ and $x = \frac{3}{2}$ are solutions.

3. Write *an* equation of a parabola for which $x = -4$ and $x = \frac{3}{2}$ are the x–intercepts.

4. Write an equation of a *different* parabola for which $x = -4$ and $x = \frac{3}{2}$ are the x–intercepts.

5. Find the point symmetric with the y-intercept of the parabola $y = x^2 - 7x + 5$.

6. The graph of $y = -x^2 + x + 6$ is shown to right.
Find the values of the intercepts k, m, and n and the coordinates of the vertex (the high point), without a calculator.



7. The graph of a parabola of the form $y = ax^2 + bx + c$ is shown to right.
Find the equation of this parabola using the given intercepts.