Harry has $2.25 in nickels, dimes, and quarters. If he had twice as many nickels, half as many dimes, and the same number of quarters, he would have $2.50. If he has 27 coins altogether, then how many of each does he have?

The sum of the digits of a three-digit number is 11. If the digits are reversed, the new number is 46 more than five times the old number. If the hundreds digit plus twice the tens digit is equal to the units digit, then what is the number?

Find the vertex, focus, and directrix for each parabola $y = \frac{1}{2}x^2$

Find the equation of the parabola with the given focus and directrix   Focus (−4, 5), directrix y = 4

Write each equation in the form $y = a(x - h)^2 + k$. Identify the vertex, focus, directrix, and axis of symmetry of each parabola $y = -3x^2 - 6x + 7$

Find the vertex, focus, directrix, and axis of symmetry of each parabola (without completing the square), and determine whether the parabola opens upward or downward

     1.) $y = 2x^2 + 4x - 3$

     2.) $y = -2x^2 - 6$

Graph both equations of each system on the same coordinate axes. Use elimination of variables to find all points of intersection.

$y = x^2 + 5x + 6$

$y = x + 11$