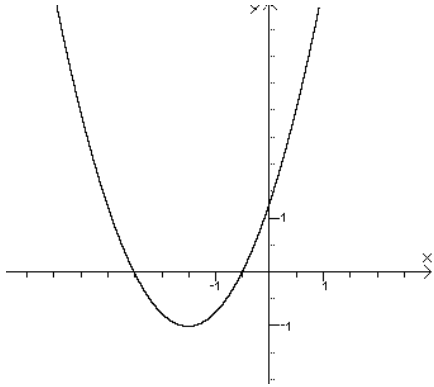
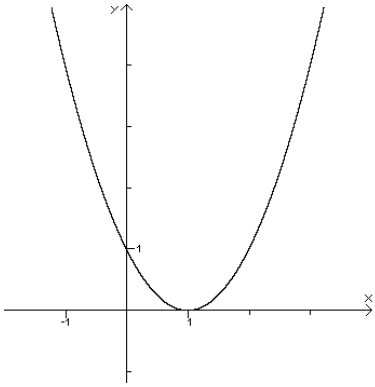
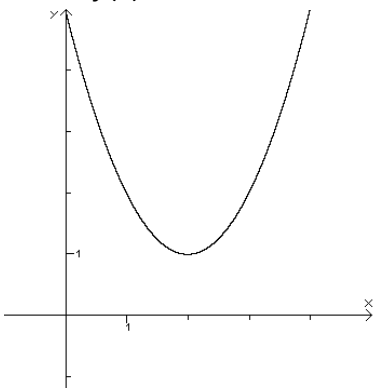


### 2.3.5. Lösungsmengen bei quadratischen Gleichungen

$f(x) = (x + 1,5)^2 - 1$ $f(x) = x^2 + 3x + 1,25$  <p><math>x_{0_1} = -2,5</math> <math>x_{0_2} = -0,5</math></p> <p><b>zwei Nullstellen</b></p>	$0 = x^2 + 3x + 1,25$ $x_{1/2} = -1,5 \pm \sqrt{2,25 - 1,25}$ $x_{1/2} = -1,5 \pm \sqrt{1}$ $x_{1/2} = -1,5 \pm 1$ $x_1 = -2,5$ $x_2 = -0,5$ <p><b>zwei Lösungen</b></p>
$f(x) = (x - 1)^2$ $f(x) = x^2 - 2x + 1$  <p><math>x_0 = 1</math></p> <p><b>eine Nullstelle</b></p>	$0 = x^2 - 2x + 1$ $x_{1/2} = 1 \pm \sqrt{1 - 1}$ $x_{1/2} = 1 \pm \sqrt{0}$ $x_{1/2} = 1 \pm 0$ $x = 1$ <p><b>eine Lösung</b></p>
$f(x) = (x - 2)^2 + 1$ $f(x) = x^2 - 4x + 5$  <p><b>keine Nullstelle</b></p>	$0 = x^2 - 4x + 5$ $x_{1/2} = 2 \pm \sqrt{4 - 5}$ $x_{1/2} = 2 \pm \sqrt{-1}$ $L = \emptyset$ <p><b>keine Lösung</b></p>