Forms and Traits of Quadratics

Find the specified traits of each quadratic function. Change from standard form to each specified form. Show work in the boxes. (Note: Sometimes changing the form helps you find the traits and sometimes finding a trait can help you rewrite it in a new form.

1) $f(x) = x^2 + 9x + 18$	2) $f(x) = 9x^2 - 4$	3) $y = -2x^2 + 8x + 42$	4) $f(x) = -x^2 + 6x - 9$
y-intercept	y-intercept		y-intercept
concavity: **up** **down**	concavity: **up** **down**	concavity: **up** **down**	concavity: **up** **down**
vertex (,)	vertex (,)	vertex (,)	vertex (,)
vertex form	vertex form	vertex form	vertex form
factored form	factored form	factored form	factored form
roots	roots	roots	roots