Factor the polynomials

$6z^6 + z^3 - 2$	$32 + 2f^2 - 16f$
$20x + 12x^3 - 31x^2$	$-14x^4 + 2x^8 + 20$
$n^2 - 13nm + 42m^2$	$50ay - 35a^2y + 5\,a^3y$

$p^2q - 25q + 3p^2 - 75$	$4v^3 - 8v^2 - 12v$
$-30g^2 - 25g + 30$	$4x^3 - 25x^2 + 6x$