Factor Quadratics

Factor completely:

a) $-2x^2 + 3x + 9$

b) $r^2 + \frac{6}{4}r + \frac{9}{16}$

c) $9x^2 - 3x - 12$

d) $16a^2b^4 + 20ab^2 - 6$

e) $3x^2 + 27x + 60$

f) $4x^2 + 9x + 5$

g) $3\boldsymbol{x}^2 - 2\boldsymbol{x} - 5$

h) $-2x^2 + 5x$

i) $5\boldsymbol{x}^2 + 19\boldsymbol{x} - 4$

j) $4\boldsymbol{x}^2 - 12\boldsymbol{x} + 9$

Factor Quadratics

Factor completely:

a) $-2x^2 + 3x + 9$

$(2x + 3)(-x + 3)$

b) $r^2 + \frac{6}{4}r + \frac{9}{16}$

$\left(r + \frac{3}{4}\right)\left(r + \frac{3}{4}\right)$

c) $9x^2 - 3x - 12$

$3(x + 1)(3x - 4)$

d) $16a^2b^4 + 20ab^2 - 6$

$2(2ab^2 + 3)(4ab^2 - 1)$

e) $3x^2 + 27x + 60$

$3(x + 4)(x + 5)$

f) $4x^2 + 9x + 5$

$(4x + 5)(x + 1)$

g) $3x^2 - 2x - 5$

$(3x - 5)(x + 1)$

h) $-2x^2 + 5x$

$(x - 2)(-2x + 1)$ *or* $-(2x - 1)(x - 2)$

i) $5x^2 + 19x - 4$

$(5x - 1)(x + 4)$

j) $4x^2 - 12x + 9$

$(2x - 3)(2x - 3)$ *or* $(2x - 3)^2$