

Name : _____

Score : _____ Date : _____

Factoring Algebraic Expressions

Factor the given expressions.

① $x^2 + 6x + 8$

② $x^2 + 7x - 18$

③ $6x^2 - x - 12$

④ $x^3 - 3x^2 + 5x - 15$

⑤ $50x^2 - 72$

⑥ $m^2x + 6mnx + 8n^2x$

⑦ $-m^2v - 8mvn - 12n^2v$

⑧ $7x^2y - 27xy^2 + 18y^3$

⑨ $4x^2 + 4xy - 35y^2$

⑩ $-42x^2 + 306xy - 84y^2$

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Factoring Algebraic Expressions

Answers

① $x^2 + 6x + 8$

$(x + 2)(x + 4)$

② $x^2 + 7x - 18$

$(x - 2)(x + 9)$

③ $6x^2 - x - 12$

$(2x - 3)(3x + 4)$

④ $x^3 - 3x^2 + 5x - 15$

$(x^2 + 5)(x - 3)$

⑤ $50x^2 - 72$

$2(5x + 6)(5x - 6)$

⑥ $m^2x + 6mnx + 8n^2x$

$x(m + 4n)(m + 2n)$

⑦ $-m^2v - 8mvn - 12n^2v$

$-v(m + 2n)(m + 6n)$

⑧ $7x^2y - 27xy^2 + 18y^3$

$y(7x - 6y)(x - 3y)$

⑨ $4x^2 + 4xy - 35y^2$

$(2x + 7y)(2x - 5y)$

⑩ $-42x^2 + 306xy - 84y^2$

$-6(7x - 2y)(x - 7y)$