

Factoring Practice

Factor each expression completely.

(1) $17x^2 + 34x + 51$

(2) $x^2 + 14x + 45$

(3) $2x^2 + 9x - 5$

(4) $6a^2r + 54arb - 60b^2r$

(5) $6x^2 - 36xy$

(6) $36x^4 - 246x^3y - 42y^2x^2$

(7) $u^2 - 3uv - 70v^2$

(8) $p^2q - 25q + 3p^2 - 75$

(9) $-20xy + 4y^2 + 25x^2$

(10) $2x^8 - 14x^4 + 20$

Factoring Practice

Answers

(1) $17x^2 + 34x + 51$

$$17(x^2 + 2x + 3)$$

(3) $2x^2 + 9x - 5$

$$(2x - 1)(x + 5)$$

(5) $6x^2 - 36xy$

$$6x(x - 6y)$$

(7) $u^2 - 3uv - 70v^2$

$$(u + 7v)(u - 10v)$$

(9) $-20xy + 4y^2 + 25x^2$

$$(5x - 2y)^2$$

(2) $x^2 + 14x + 45$

$$(x + 9)(x + 5)$$

(4) $6a^2r + 54arb - 60b^2r$

$$6r(a - b)(a + 10b)$$

(6) $36x^4 - 246x^3y - 42y^2x^2$

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

(8) $p^2q - 25q + 3p^2 - 75$

$$(q + 3)(p + 5)(p - 5)$$

(10) $2x^8 - 14x^4 + 20$

$$2(x^4 - 5)(x^4 - 2)$$