

$$1. 30x^2 + 115x + 100$$

$$5(3x + 4)(2x + 5)$$

$$2. 9x^2 - 39x + 36$$

$$3(3x - 4)(x - 3)$$

$$3. 3z^9 - 243w^4z$$

$$3z(z^2 - 3w)(3w + z^2)(9w^2 + z^4)$$

$$4. 2x^3 + 250$$

$$2(x + 5)(x^2 - 5x + 25)$$

$$5. 8x^6 - 343y^9$$

$$(2x^2 - 7y^3)(4x^4 + 14x^2y^3 + 49y^6)$$

$$6. 12p^3 + 15p^2 - 48p - 60$$

$$(4p + 5)(3p^2 - 12)$$

$$7. 4x^2 - 36$$

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

$$8. x^2 + 45x + 164$$

$$(x + 41)(x + 4)$$

$$9. 18x^2 + 141xy^2 + 105y^4$$

$$3(x + 7y^2)(6x + 5y^2)$$

$$10. 3x^6 + 28x^3y^2 + 65y^4$$

$$(3x^3 + 13y^2)(x^3 + 5y^2)$$