

$$\begin{array}{llll}
 m^3 + n^3; & б) a^3 + 1; & в) b^3 + 8; & г) x^3 + y^6; \\
 p^6 + q^6; & е) m^6 + n^{15}; & ж) 27a^3 + b^3; & з) x^3 + 64y^3; \\
 c^6 + 125d^3; & к) 8p^6 + q^{12}. & &
 \end{array}$$

$$(a^n)^k = a^{(n \cdot k)}$$

$$(a^n)^3 = a^{(n \cdot 3)}$$

$$p^6 + q^6 = (p^2)^3 + (q^2)^3$$

$$1) (m+n)(m^2 - mn + n^2)$$

$$2) (p^2 + q^2)((p^2)^2 - p^2q^2 + (q^2)^2) = (p^2 + q^2)(p^4 - p^2q^2 + q^4)$$

$$3) (c^2 + 5d)(c^4 - 5c^2d + (5d)^2) = (c^2 + 5d)(c^4 - 5c^2d + 25d^2)$$

$$4) (a+1)(a^2 - a + 1^2)$$

$$5) (m^2 + n^5)(m^4 - m^2n^5 + n^{10})$$

$$6) (2p^2 + q^4)(4p^4 - 2p^2q^4 + q^8)$$

$$7) (b+2)(b^2 - 2b + 2^2) = (b+2)(b^2 - 2b + 4)$$

$$8) (3a+b)(3a^2 - 3ab + b^2)$$

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

$$10) (x+4y)(x^2 - 4yx + 16y^2)$$

$$(a^2)^3 = (a^2) \cdot (a^2) \cdot (a^2) = (a \cdot a) \cdot (a \cdot a) \cdot (a \cdot a) = a^{(2 \cdot 3)} = a^6$$