

$$1) (x+3)^2 = x^2 + 6x + 9$$

$$2) (x+5)^2 = x^2 + 10x + 25$$

$$3) (a+4)^2 = a^2 + 8a + 16$$

$$4) (a+8)^2 = a^2 + 16a + 64$$

$$5) (x+1)^2 = x^2 + 2x + 1$$

$$11) (2ab+3c)^2 = 4a^2b^2 + 12abc + 9c^2$$

$$12) (3abx+7x)^2 = 9a^2b^2x^2 + 42abx^2 + 49x^2$$

$$13) (p+2q)^2 = p^2 + 4pq + 4q^2$$

$$14) (x^2+4)^2 = x^4 + 8x^2 + 16$$

$$15) (x^2+x^3)^2 = x^4 + 2x^2 \cdot x^3 + x^6 \\ = x^4 + 2x^5 + x^6 \\ = x^6 + 2x^5 + x^4$$

$$6) (2x+3)^2 = 4x^2 + 12x + 9$$

$$7) (x+y)^2 = x^2 + 2xy + y^2$$

$$8) (9x+4)^2 = 81x^2 + 72x + 16$$

$$9) (4x+11)^2 = 16x^2 + 88x + 121$$

$$10) (5x+12)^2 = 25x^2 + 120x + 144$$

$$16) (5x+11)^2 = 25x^2 + 110x + 121$$

$$17) (x+y)^2 = x^2 + 2xy + y^2$$

$$18) (8ax+7x)^2 = 64a^2x^2 + 2 \cdot 56ax^2 + 49x^2 \\ = 64a^2x^2 + 112ax^2 + 49x^2$$

$$19) (x^3+1)^2 = x^6 + 2x^3 + 1$$

$$20) (x^2+1)^2 = x^4 + 2x^2 + 1$$

$$21) 5(x^2+1)^2 = 5(x^4 + 2x^2 + 1) = 5x^4 + 10x^2 + 5$$

$$22) -5(x^2+1)^2 = -5(x^4 + 2x^2 + 1) = -5x^4 - 10x^2 - 5$$

$$23) 2(4x^3+3x^5)^2 = 2(16x^6 + 24x^8 + 9x^{10}) = 32x^6 + 48x^8 + 18x^{10} = 18x^{10} + 48x^8 + 32x^6$$

$$24) -3ab(a^2+2b^4)^2 = -3ab(a^4 + 4a^2b^4 + 4b^8) = -3a^5b - 12a^3b^5 - 12ab^9$$

$$25) -10xy^2(x^2+1)^2 = -10xy^2(x^4 + 2x^2 + 1) = -10x^5y^2 - 20x^3y^2 - 10xy^2$$

