Куб суммы и разности

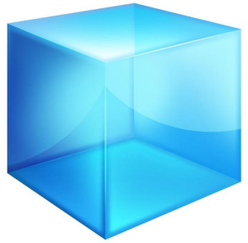
1)(!!!) x^3 + 3x^2y + 3y^2x + y^3 =

=(x+y)(x^2-xy+y^2) + 3yx(x+y) =

= (x+y)((x^2-xy+y^2)+3yx)=

= (x+y)(x^2-xy+y^2+3yx)=

=(x+y)(x^2+2xy+y^2)=(x+y)(x+y)^2=(x+y)^3*



x^3 – 3x^2y + 3xy^2–y^3 = x^3 – x^2y- x^2y - x^2y + xy^2 + xy^2 + xy^2 – y^3 =

x^3 – x^2y- x^2y+xy^2

- x^2y + xy^2 + xy^2 – y^3 = x(x^2-xy - xy + y^2) - y(y^2-xy-xy+x^2) =

=(y^2-xy-xy+x^2)(x-y) = (y^2-2xy+x^2)(x-y)=(x-y)^2(x-y) = (x-y)^3

x^3 + 3x^2y + 3y^2x + y^3 =

=x^3 + x^2y+ x^2y+ x^2y + y^2x+ y^2x+ y^2x + y^3 =

=x^3 + x^2y+ x^2y+ x^2y + y^2x+ y^2x+ y^2x + y^3 =

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

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

(x+y)((x+y)(x+y))=(x+y)(x+y)(x+y)=(x+y)^3

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

(x-y)^2=x^2-2xy+y^2

x^2-y^2=(x-y)(x+y)

x^3+y^3=(x+y)(x^2-xy+y^2)

x^3-y^3=(x-y)(x^2+xy+y^2)

x^3 + 3x^2y + 3y^2x + y^3=(x+y)^3

неверное

x(x^2+3xy) + y(3yx+y^2)=

решить 2 способами как 1-е

2)(!!!) x^3 – 3x^2y + 3xy^2 – y^3 = …

(x-y)(x^2+xy+y^2) - 3xy(x-y) = (x-y)((x^2+xy+y^2)-3xy) =

(x-y)(x^2+xy+y^2-3xy) = (x-y)(-2xy+x^2+y^2) = (x-y)((x-y)^2) = (x-y)^3

неверное

x(x^2-3x) + y(3xy-y^2)

-2(as+da)*(x+y) +fsdfas*(x+y) =(x+y) (-2(as+da) + fsdfas)=(x+y) (-2as-2da+ fsdfas)