式の展開 3項・工夫（20問）　版A

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x + 1)(x - 2)(x - 3) =$

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

(3) $(x + y + 7)(x + y - 5) =$

(4) $(x + y + 2)(x + y - 5) =$

(5) $(x + y - 1)(x + y + 7) =$

(6) $(x^2 + 2x - 3)(x^2 - 2x - 3) =$

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

(8) $(x + 1)(x - 1)(x^2 + 1) =$

(9) $(x - 2)(x + 2)(x + 5) =$

(10) $(x + 2y - 3)^2 =$

(11) $(x + y - 4)(x + y - 7) =$

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

(13) $(x + 4)(x - 4)(x^2 + 16) =$

(14) $(x^2 + 2x - 5)(x^2 - 2x - 5) =$

(15) $(x + 2y - 5)^2 =$

(16) $(x^2 + 3x + 5)(x^2 - 3x + 5) =$

(17) $(x + 3y + 1)^2 =$

(18) $(x + y + 3)(x + y + 5) =$

(19) $(x - 1)(x + 1)(x - 3) =$

(20) $(x - 2)(x - 4)(x + 4) =$

式の展開 3項・工夫（20問）　版B

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x + 1)(x - 3)(x + 5) =$

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

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

(4) $(x + y - 4)(x + y - 2) =$

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

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

(7) $(x - 3)(x + 4)(x - 5) =$

(8) $(x^2 + 2x - 4)(x^2 - 2x - 4) =$

(9) $(x + y - 5)(x + y + 1) =$

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

(11) $(x + 2)(x - 2)(x^2 + 4) =$

(12) $(x - 3y + 2)^2 =$

(13) $(x + y - 5)(x + y + 5) =$

(14) $(x + y + 2)^2 =$

(15) $(x^2 + 3x + 2)(x^2 - 3x + 2) =$

(16) $(x + 4)(x - 4)(x^2 + 16) =$

(17) $(x + 3y - 3)^2 =$

(18) $(x + y - 3)(x + y - 1) =$

(19) $(x + y - 6)(x + y + 1) =$

(20) $(x + 1)(x + 2)(x + 3) =$

式の展開 3項・工夫（20問）　版C

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

(2) $(x + y + 5)(x + y - 7)$ =

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

(4) $(x + y + 5)(x + y - 4)$ =

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

(6) $(x + 3y - 5)^2$ =

(7) $(x + 1)(x + 2)(x + 3)$ =

(8) $(x + y + 3)(x + y + 6)$ =

(9) $(x - 3y + 2)^2$ =

(10) $(x + 2y - 4)^2$ =

(11) $(x + 2)(x - 3)(x - 5)$ =

(12) $(x + y - 2)(x + y + 4)$ =

(13) $(x + 2)(x - 3)(x + 4)$ =

(14) $(x + 1)(x - 4)(x - 5)$ =

(15) $(x^2 + 4x + 3)(x^2 - 4x + 3)$ =

(16) $(x + y + 4)(x + y + 3)$ =

(17) $(x + 1)(x - 1)(x^2 + 1)$ =

(18) $(x + 2y - 1)^2$ =

(19) $(x^2 + 3x - 3)(x^2 - 3x - 3)$ =

(20) $(x + 3)(x - 3)(x^2 + 9)$ =

式の展開 3項・工夫（20問）　版D

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x^2 + 3x - 5)(x^2 - 3x - 5) =$

(2) $(x^2 + 2x - 4)(x^2 - 2x - 4) =$

(3) $(x + y - 4)(x + y + 7) =$

(4) $(x + y - 1)(x + y - 3) =$

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

(6) $(x + 4)(x - 4)(x + 5) =$

(7) $(x + y + 4)(x + y + 1) =$

(8) $(x - 2y + 4)^2 =$

(9) $(x + 2)(x - 4)(x - 5) =$

(10) $(x + y + 2)(x + y - 2) =$

(11) $(x + 3)(x - 3)(x^2 + 9) =$

(12) $(x^2 + 4x - 1)(x^2 - 4x - 1) =$

(13) $(x + 1)(x + 2)(x - 3) =$

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

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

(16) $(x - 2y - 4)^2 =$

(17) $(x - y - 3)^2 =$

(18) $(x + 2y - 3)^2 =$

(19) $(x + 2y + 2)^2 =$

(20) $(x + y - 1)(x + y + 2) =$

式の展開 3項・工夫（20問）　版E

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x + y + 2)(x + y - 1)$ =

(2) $(x^2 + 2x - 3)(x^2 - 2x - 3)$ =

(3) $(x + y - 1)(x + y - 6)$ =

(4) $(x + y + 5)(x + y + 2)$ =

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

(6) $(x - 1)(x + 3)(x - 4)$ =

(7) $(x - 2y - 3)^2$ =

(8) $(x + 4)(x + 5)(x - 5)$ =

(9) $(x^2 + x - 1)(x^2 - x - 1)$ =

(10) $(x - 3y - 3)^2$ =

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

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

(13) $(x + 2)(x - 2)(x^2 + 4)$ =

(14) $(x + 3)(x - 3)(x^2 + 9)$ =

(15) $(x - 1)(x - 3)(x + 4)$ =

(16) $(x + 4)(x - 4)(x^2 + 16)$ =

(17) $(x + y + 1)(x + y - 1)$ =

(18) $(x - 3y + 2)^2$ =

(19) $(x + y + 4)(x + y + 5)$ =

(20) $(x + 2)(x - 3)(x - 4)$ =

式の展開 3項・工夫（20問）　版F

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

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

(3) $(x^2 + 3x + 4)(x^2 - 3x + 4) =$

(4) $(x + y + 4)(x + y - 1) =$

(5) $(x + 3y - 1)^2 =$

(6) $(x + y - 7)(x + y - 4) =$

(7) $(x - y - 1)^2 =$

(8) $(x - 3y + 2)^2 =$

(9) $(x - 1)(x + 4)(x + 5) =$

(10) $(x + 2)(x - 2)(x^2 + 4) =$

(11) $(x^2 + x - 4)(x^2 - x - 4) =$

(12) $(x - 3)(x + 3)(x + 5) =$

(13) $(x^2 + 4x + 2)(x^2 - 4x + 2) =$

(14) $(x + 2)(x - 4)(x + 5) =$

(15) $(x - 2y + 3)^2 =$

(16) $(x + y + 6)(x + y + 4) =$

(17) $(x + 4)(x - 4)(x^2 + 16) =$

(18) $(x + y + 7)(x + y + 2) =$

(19) $(x + y + 5)(x + y - 6) =$

(20) $(x - 1)(x + 3)(x + 5) =$

式の展開 3項・工夫（20問）　版G

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x + y + 4)(x + y + 6) =$

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

(3) $(x + y - 5)(x + y - 4) =$

(4) $(x^2 + 4x - 3)(x^2 - 4x - 3) =$

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

(6) $(x + 2)(x - 2)(x^2 + 4) =$

(7) $(x - 2y + 3)^2 =$

(8) $(x + y - 1)(x + y + 1) =$

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

(10) $(x^2 + 4x + 4)(x^2 - 4x + 4) =$

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

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

(13) $(x^2 + 2x - 3)(x^2 - 2x - 3) =$

(14) $(x + y + 2)(x + y + 7) =$

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

(16) $(x - 4)(x - 5)(x + 5) =$

(17) $(x - 2y - 1)^2 =$

(18) $(x - 1)(x - 2)(x + 4) =$

(19) $(x - y + 3)^2 =$

(20) $(x + y - 4)(x + y - 7) =$

式の展開 3項・工夫（20問）　版H

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

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

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

(4) $(x^2 + 2x - 2)(x^2 - 2x - 2)$ =

(5) $(x + y - 1)(x + y + 6)$ =

(6) $(x + 4)(x - 4)(x^2 + 16)$ =

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

(8) $(x + y + 6)(x + y + 2)$ =

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

(10) $(x - 2y - 2)^2$ =

(11) $(x + 3y + 5)^2$ =

(12) $(x + y + 2)(x + y - 2)$ =

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

(14) $(x + 1)(x + 2)(x - 3)$ =

(15) $(x + 1)(x - 3)(x - 5)$ =

(16) $(x + y - 5)(x + y - 2)$ =

(17) $(x + 2)(x - 4)(x + 5)$ =

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

(19) $(x + y + 4)(x + y + 2)$ =

(20) $(x + 3)(x - 3)(x^2 + 9)$ =

式の展開 3項・工夫（20問）　版I

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

(2) $(x - 3y + 1)^2 =$

(3) $(x + 4)(x - 4)(x^2 + 16) =$

(4) $(x + y + 3)(x + y - 7) =$

(5) $(x + y + 3)(x + y - 5) =$

(6) $(x + 3)(x - 4)(x - 5) =$

(7) $(x + 1)(x - 1)(x^2 + 1) =$

(8) $(x + y + 1)(x + y + 3) =$

(9) $(x + 2)(x + 3)(x + 4) =$

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

(11) $(x + 2)(x - 4)(x + 5) =$

(12) $(x + y - 6)(x + y - 2) =$

(13) $(x^2 + 3x + 1)(x^2 - 3x + 1) =$

(14) $(x^2 + 4x + 2)(x^2 - 4x + 2) =$

(15) $(x + 3y + 1)^2 =$

(16) $(x + y + 5)(x + y - 3) =$

(17) $(x + 2)(x - 4)(x + 4) =$

(18) $(x + 3)(x - 3)(x^2 + 9) =$

(19) $(x - y - 1)^2 =$

(20) $(x - 3y + 5)^2 =$

式の展開 3項・工夫（20問）　版J

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x + 4)(x - 4)(x^2 + 16) =$

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

(3) $(x^2 + 4x - 4)(x^2 - 4x - 4) =$

(4) $(x + 2y - 1)^2 =$

(5) $(x + y - 6)(x + y - 7) =$

(6) $(x + 2)(x - 2)(x^2 + 4) =$

(7) $(x + y + 4)(x + y - 6) =$

(8) $(x - 3y - 3)^2 =$

(9) $(x^2 + x - 4)(x^2 - x - 4) =$

(10) $(x + y - 2)(x + y + 7) =$

(11) $(x + y - 3)(x + y - 6) =$

(12) $(x^2 + x + 5)(x^2 - x + 5) =$

(13) $(x + 3y + 1)^2 =$

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

(15) $(x - 1)(x + 2)(x - 4) =$

(16) $(x + y - 1)(x + y - 2) =$

(17) $(x - 3y - 2)^2 =$

(18) $(x + 2y - 3)^2 =$

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

(20) $(x + 1)(x + 3)(x + 4) =$

式の展開 3項・工夫（20問）　版K

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x - 2y - 3)^2$ =

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

(3) $(x - 2y - 4)^2$ =

(4) $(x^2 + 4x + 4)(x^2 - 4x + 4)$ =

(5) $(x - 1)(x + 2)(x + 3)$ =

(6) $(x - y + 3)^2$ =

(7) $(x^2 + 4x - 5)(x^2 - 4x - 5)$ =

(8) $(x + 1)(x + 4)(x + 5)$ =

(9) $(x + y + 5)(x + y - 3)$ =

(10) $(x + 2)(x - 2)(x^2 + 4)$ =

(11) $(x + y - 6)(x + y + 3)$ =

(12) $(x + 2)(x + 4)(x - 5)$ =

(13) $(x + y - 3)^2$ =

(14) $(x + 3)(x - 3)(x^2 + 9)$ =

(15) $(x - 1)(x - 3)(x - 5)$ =

(16) $(x + y + 6)(x + y - 7)$ =

(17) $(x + 1)(x - 1)(x^2 + 1)$ =

(18) $(x + y + 1)(x + y + 7)$ =

(19) $(x + y + 4)(x + y - 3)$ =

(20) $(x - y - 1)^2$ =

式の展開 3項・工夫（20問）　版L

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

(2) $(x - 2y - 1)^2$ =

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

(4) $(x + y + 4)(x + y + 2)$ =

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

(6) $(x + y + 7)(x + y - 3)$ =

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

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

(9) $(x + y + 4)^2$ =

(10) $(x + 2)(x - 2)(x^2 + 4)$ =

(11) $(x + y - 5)(x + y - 7)$ =

(12) $(x^2 + 2x + 3)(x^2 - 2x + 3)$ =

(13) $(x - 1)(x + 3)(x + 5)$ =

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

(15) $(x - 1)(x - 3)(x - 5)$ =

(16) $(x + 1)(x - 1)(x^2 + 1)$ =

(17) $(x + 2)(x + 3)(x + 4)$ =

(18) $(x + y - 1)(x + y + 3)$ =

(19) $(x + y - 2)(x + y + 6)$ =

(20) $(x^2 + 3x - 5)(x^2 - 3x - 5)$ =

式の展開 3項・工夫（20問）　版M

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

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

(3) $(x - 1)(x - 2)(x + 2) =$

(4) $(x + 1)(x + 3)(x + 4) =$

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

(6) $(x^2 + 2x + 2)(x^2 - 2x + 2) =$

(7) $(x + y - 4)(x + y + 6) =$

(8) $(x - 3)(x - 5)(x + 5) =$

(9) $(x^2 + 4x + 5)(x^2 - 4x + 5) =$

(10) $(x + 1)(x - 1)(x^2 + 1) =$

(11) $(x^2 + x - 3)(x^2 - x - 3) =$

(12) $(x + y - 7)(x + y + 5) =$

(13) $(x + y - 1)(x + y - 3) =$

(14) $(x - 3y - 1)^2 =$

(15) $(x + y - 7)(x + y + 1) =$

(16) $(x + 3y + 5)^2 =$

(17) $(x + y - 3)^2 =$

(18) $(x + y + 2)^2 =$

(19) $(x + y - 7)(x + y - 2) =$

(20) $(x + 2)(x + 3)(x + 5) =$

式の展開 3項・工夫（20問）　版N

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x-1)(x-4)(x+4)=$

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

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

(4) $(x+y+3)(x+y-2)=$

(5) $(x^2+3x+1)(x^2-3x+1)=$

(6) $(x-3y-4)^2=$

(7) $(x-y-2)^2=$

(8) $(x+y+2)(x+y-4)=$

(9) $(x-2y+5)^2=$

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

(11) $(x-y+4)^2=$

(12) $(x+3y+5)^2=$

(13) $(x+y-6)(x+y+6)=$

(14) $(x+2)(x-3)(x-5)=$

(15) $(x^2+4x+5)(x^2-4x+5)=$

(16) $(x^2+4x+1)(x^2-4x+1)=$

(17) $(x+4)(x-4)(x^2+16)=$

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

(19) $(x+1)(x-1)(x^2+1)=$

(20) $(x+y-3)(x+y+3)=$

式の展開 3項・工夫（20問）　版O

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

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

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

(3) $(x + y - 1)(x + y + 7) =$

(4) $(x^2 + 3x + 1)(x^2 - 3x + 1) =$

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

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

(7) $(x^2 + x + 1)(x^2 - x + 1) =$

(8) $(x - 3)(x + 4)(x - 5) =$

(9) $(x + 1)(x - 2)(x - 3) =$

(10) $(x + y - 2)(x + y - 3) =$

(11) $(x + y - 3)^2 =$

(12) $(x^2 + x - 1)(x^2 - x - 1) =$

(13) $(x + 1)(x - 1)(x^2 + 1) =$

(14) $(x + y + 2)(x + y + 4) =$

(15) $(x + y - 5)(x + y + 6) =$

(16) $(x - 2y - 4)^2 =$

(17) $(x + 2)(x - 2)(x - 4) =$

(18) $(x + 2y + 1)^2 =$

(19) $(x + 2)(x - 2)(x^2 + 4) =$

(20) $(x - 3y - 4)^2 =$

式の展開 3項・工夫（20問）　版P

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x + y + 1)(x + y + 6) =$

(2) $(x - 1)(x + 4)(x + 5) =$

(3) $(x + 2)(x + 5)(x - 5) =$

(4) $(x + y + 1)(x + y + 3) =$

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

(6) $(x + y - 3)^2 =$

(7) $(x + y - 1)(x + y + 3) =$

(8) $(x + 1)(x - 1)(x^2 + 1) =$

(9) $(x + 2y + 2)^2 =$

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

(11) $(x + 2)(x - 3)(x + 4) =$

(12) $(x - y + 1)^2 =$

(13) $(x + y + 2)(x + y - 1) =$

(14) $(x^2 + 4x + 2)(x^2 - 4x + 2) =$

(15) $(x - 1)(x + 4)(x - 5) =$

(16) $(x + y - 2)(x + y + 6) =$

(17) $(x + 2y - 4)^2 =$

(18) $(x^2 + 3x + 3)(x^2 - 3x + 3) =$

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

(20) $(x + 3)(x - 3)(x^2 + 9) =$

式の展開 3項・工夫（20問）　版Q

組　　番　　なまえ：＿＿＿＿＿＿＿＿＿＿　　／20問

(1) $(x-3)(x-5)(x+5)=$

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

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

(4) $(x+3y-2)^2=$

(5) $(x-1)(x-4)(x-5)=$

(6) $(x^2+4x+5)(x^2-4x+5)=$

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

(8) $(x-y-4)^2=$

(9) $(x+y+2)(x+y-7)=$

(10) $(x+y-2)(x+y+4)=$

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

(12) $(x+y+3)(x+y-6)=$

(13) $(x+y+6)(x+y+3)=$

(14) $(x+1)(x-1)(x^2+1)=$

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

(16) $(x^2+4x-2)(x^2-4x-2)=$

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

(18) $(x+3)(x-3)(x^2+9)=$

(19) $(x+y+7)(x+y-2)=$

(20) $(x-2y-3)^2=$

式の展開 3項・工夫（20問）　版Aの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + 1)(x - 2)(x - 3)$

$= x^3 - 4x^2 + x + 6$

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

$= x^2 + 4xy + 4y^2 - 4x - 8y + 4$

(3) $(x + y + 7)(x + y - 5)$

$= x^2 + 2xy + y^2 + 2x + 2y - 35$

(4) $(x + y + 2)(x + y - 5)$

$= x^2 + 2xy + y^2 - 3x - 3y - 10$

(5) $(x + y - 1)(x + y + 7)$

$= x^2 + 2xy + y^2 + 6x + 6y - 7$

(6) $(x^2 + 2x - 3)(x^2 - 2x - 3)$

$= x^4 - 10x^2 + 9$

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

$= x^2 - 4xy + 4y^2 + 4x - 8y + 4$

(8) $(x + 1)(x - 1)(x^2 + 1)$

$= x^4 - 1$

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

$= x^3 + 5x^2 - 4x - 20$

(10) $(x + 2y - 3)^2$

$= x^2 + 4xy + 4y^2 - 6x - 12y + 9$

(11) $(x + y - 4)(x + y - 7)$

$= x^2 + 2xy + y^2 - 11x - 11y + 28$

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

$= x^4 - 625$

(13) $(x + 4)(x - 4)(x^2 + 16)$

$= x^4 - 256$

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

$= x^4 - 14x^2 + 25$

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

$= x^2 + 4xy + 4y^2 - 10x - 20y + 25$

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

$= x^4 + x^2 + 25$

(17) $(x + 3y + 1)^2$

$= x^2 + 6xy + 9y^2 + 2x + 6y + 1$

(18) $(x + y + 3)(x + y + 5)$

$= x^2 + 2xy + y^2 + 8x + 8y + 15$

(19) $(x - 1)(x + 1)(x - 3)$

$= x^3 - 3x^2 - x + 3$

(20) $(x - 2)(x - 4)(x + 4)$

$= x^3 - 2x^2 - 16x + 32$

式の展開 3項・工夫（20問）　版Bの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + 1)(x - 3)(x + 5)$
$= x^3 + 3x^2 - 13x - 15$

(2) $(x - 2y - 2)^2$
$= x^2 - 4xy + 4y^2 - 4x + 8y + 4$

(3) $(x + 2)(x + 4)(x + 5)$
$= x^3 + 11x^2 + 38x + 40$

(4) $(x + y - 4)(x + y - 2)$
$= x^2 + 2xy + y^2 - 6x - 6y + 8$

(5) $(x^2 + 2x + 3)(x^2 - 2x + 3)$
$= x^4 + 2x^2 + 9$

(6) $(x - y - 5)^2$
$= x^2 - 2xy + y^2 - 10x + 10y + 25$

(7) $(x - 3)(x + 4)(x - 5)$
$= x^3 - 4x^2 - 17x + 60$

(8) $(x^2 + 2x - 4)(x^2 - 2x - 4)$
$= x^4 - 12x^2 + 16$

(9) $(x + y - 5)(x + y + 1)$
$= x^2 + 2xy + y^2 - 4x - 4y - 5$

(10) $(x + 5)(x - 5)(x^2 + 25)$
$= x^4 - 625$

(11) $(x + 2)(x - 2)(x^2 + 4)$
$= x^4 - 16$

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

(13) $(x + y - 5)(x + y + 5)$
$= x^2 + 2xy + y^2 - 25$

(14) $(x + y + 2)^2$
$= x^2 + 2xy + y^2 + 4x + 4y + 4$

(15) $(x^2 + 3x + 2)(x^2 - 3x + 2)$
$= x^4 - 5x^2 + 4$

(16) $(x + 4)(x - 4)(x^2 + 16)$
$= x^4 - 256$

(17) $(x + 3y - 3)^2$
$= x^2 + 6xy + 9y^2 - 6x - 18y + 9$

(18) $(x + y - 3)(x + y - 1)$
$= x^2 + 2xy + y^2 - 4x - 4y + 3$

(19) $(x + y - 6)(x + y + 1)$
$= x^2 + 2xy + y^2 - 5x - 5y - 6$

(20) $(x + 1)(x + 2)(x + 3)$
$= x^3 + 6x^2 + 11x + 6$

式の展開 3項・工夫（20問）　版Cの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

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

$= x^4 - 9x^2 + 16$

(2) $(x + y + 5)(x + y - 7)$

$= x^2 + 2xy + y^2 - 2x - 2y - 35$

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

$= x^2 + 6xy + 9y^2 - 4x - 12y + 4$

(4) $(x + y + 5)(x + y - 4)$

$= x^2 + 2xy + y^2 + x + y - 20$

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

$= x^4 - 16$

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

$= x^2 + 6xy + 9y^2 - 10x - 30y + 25$

(7) $(x + 1)(x + 2)(x + 3)$

$= x^3 + 6x^2 + 11x + 6$

(8) $(x + y + 3)(x + y + 6)$

$= x^2 + 2xy + y^2 + 9x + 9y + 18$

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

$= x^2 - 6xy + 9y^2 + 4x - 12y + 4$

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

$= x^2 + 4xy + 4y^2 - 8x - 16y + 16$

(11) $(x + 2)(x - 3)(x - 5)$

$= x^3 - 6x^2 - x + 30$

(12) $(x + y - 2)(x + y + 4)$

$= x^2 + 2xy + y^2 + 2x + 2y - 8$

(13) $(x + 2)(x - 3)(x + 4)$

$= x^3 + 3x^2 - 10x - 24$

(14) $(x + 1)(x - 4)(x - 5)$

$= x^3 - 8x^2 + 11x + 20$

(15) $(x^2 + 4x + 3)(x^2 - 4x + 3)$

$= x^4 - 10x^2 + 9$

(16) $(x + y + 4)(x + y + 3)$

$= x^2 + 2xy + y^2 + 7x + 7y + 12$

(17) $(x + 1)(x - 1)(x^2 + 1)$

$= x^4 - 1$

(18) $(x + 2y - 1)^2$

$= x^2 + 4xy + 4y^2 - 2x - 4y + 1$

(19) $(x^2 + 3x - 3)(x^2 - 3x - 3)$

$= x^4 - 15x^2 + 9$

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

$= x^4 - 81$

式の展開 3項・工夫（20問）　版Dの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x^2 + 3x - 5)(x^2 - 3x - 5)$
$= x^4 - 19x^2 + 25$

(2) $(x^2 + 2x - 4)(x^2 - 2x - 4)$
$= x^4 - 12x^2 + 16$

(3) $(x + y - 4)(x + y + 7)$
$= x^2 + 2xy + y^2 + 3x + 3y - 28$

(4) $(x + y - 1)(x + y - 3)$
$= x^2 + 2xy + y^2 - 4x - 4y + 3$

(5) $(x - 1)(x + 2)(x - 5)$
$= x^3 - 4x^2 - 7x + 10$

(6) $(x + 4)(x - 4)(x + 5)$
$= x^3 + 5x^2 - 16x - 80$

(7) $(x + y + 4)(x + y + 1)$
$= x^2 + 2xy + y^2 + 5x + 5y + 4$

(8) $(x - 2y + 4)^2$
$= x^2 - 4xy + 4y^2 + 8x - 16y + 16$

(9) $(x + 2)(x - 4)(x - 5)$
$= x^3 - 7x^2 + 2x + 40$

(10) $(x + y + 2)(x + y - 2)$
$= x^2 + 2xy + y^2 - 4$

(11) $(x + 3)(x - 3)(x^2 + 9)$
$= x^4 - 81$

(12) $(x^2 + 4x - 1)(x^2 - 4x - 1)$
$= x^4 - 18x^2 + 1$

(13) $(x + 1)(x + 2)(x - 3)$
$= x^3 - 7x - 6$

(14) $(x + 4)(x - 4)(x^2 + 16)$
$= x^4 - 256$

(15) $(x + 5)(x - 5)(x^2 + 25)$
$= x^4 - 625$

(16) $(x - 2y - 4)^2$
$= x^2 - 4xy + 4y^2 - 8x + 16y + 16$

(17) $(x - y - 3)^2$
$= x^2 - 2xy + y^2 - 6x + 6y + 9$

(18) $(x + 2y - 3)^2$
$= x^2 + 4xy + 4y^2 - 6x - 12y + 9$

(19) $(x + 2y + 2)^2$
$= x^2 + 4xy + 4y^2 + 4x + 8y + 4$

(20) $(x + y - 1)(x + y + 2)$
$= x^2 + 2xy + y^2 + x + y - 2$

式の展開 3項・工夫（20問）　版Eの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

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

$= x^2 + 2xy + y^2 + x + y - 2$

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

$= x^4 - 10x^2 + 9$

(3) $(x + y - 1)(x + y - 6)$

$= x^2 + 2xy + y^2 - 7x - 7y + 6$

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

$= x^2 + 2xy + y^2 + 7x + 7y + 10$

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

$= x^4 - 13x^2 + 4$

(6) $(x - 1)(x + 3)(x - 4)$

$= x^3 - 2x^2 - 11x + 12$

(7) $(x - 2y - 3)^2$

$= x^2 - 4xy + 4y^2 - 6x + 12y + 9$

(8) $(x + 4)(x + 5)(x - 5)$

$= x^3 + 4x^2 - 25x - 100$

(9) $(x^2 + x - 1)(x^2 - x - 1)$

$= x^4 - 3x^2 + 1$

(10) $(x - 3y - 3)^2$

$= x^2 - 6xy + 9y^2 - 6x + 18y + 9$

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

$= x^2 - 4xy + 4y^2 - 10x + 20y + 25$

(12) $(x - 2y + 2)^2$

$= x^2 - 4xy + 4y^2 + 4x - 8y + 4$

(13) $(x + 2)(x - 2)(x^2 + 4)$

$= x^4 - 16$

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

$= x^4 - 81$

(15) $(x - 1)(x - 3)(x + 4)$

$= x^3 - 13x + 12$

(16) $(x + 4)(x - 4)(x^2 + 16)$

$= x^4 - 256$

(17) $(x + y + 1)(x + y - 1)$

$= x^2 + 2xy + y^2 - 1$

(18) $(x - 3y + 2)^2$

$= x^2 - 6xy + 9y^2 + 4x - 12y + 4$

(19) $(x + y + 4)(x + y + 5)$

$= x^2 + 2xy + y^2 + 9x + 9y + 20$

(20) $(x + 2)(x - 3)(x - 4)$

$= x^3 - 5x^2 - 2x + 24$

式の展開 3項・工夫（20問）　版Fの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

(1) $(x + 3)(x - 3)(x^2 + 9)$
$= x^4 - 81$

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

(3) $(x^2 + 3x + 4)(x^2 - 3x + 4)$
$= x^4 - x^2 + 16$

(4) $(x + y + 4)(x + y - 1)$
$= x^2 + 2xy + y^2 + 3x + 3y - 4$

(5) $(x + 3y - 1)^2$
$= x^2 + 6xy + 9y^2 - 2x - 6y + 1$

(6) $(x + y - 7)(x + y - 4)$
$= x^2 + 2xy + y^2 - 11x - 11y + 28$

(7) $(x - y - 1)^2$
$= x^2 - 2xy + y^2 - 2x + 2y + 1$

(8) $(x - 3y + 2)^2$
$= x^2 - 6xy + 9y^2 + 4x - 12y + 4$

(9) $(x - 1)(x + 4)(x + 5)$
$= x^3 + 8x^2 + 11x - 20$

(10) $(x + 2)(x - 2)(x^2 + 4)$
$= x^4 - 16$

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

(12) $(x - 3)(x + 3)(x + 5)$
$= x^3 + 5x^2 - 9x - 45$

(13) $(x^2 + 4x + 2)(x^2 - 4x + 2)$
$= x^4 - 12x^2 + 4$

(14) $(x + 2)(x - 4)(x + 5)$
$= x^3 + 3x^2 - 18x - 40$

(15) $(x - 2y + 3)^2$
$= x^2 - 4xy + 4y^2 + 6x - 12y + 9$

(16) $(x + y + 6)(x + y + 4)$
$= x^2 + 2xy + y^2 + 10x + 10y + 24$

(17) $(x + 4)(x - 4)(x^2 + 16)$
$= x^4 - 256$

(18) $(x + y + 7)(x + y + 2)$
$= x^2 + 2xy + y^2 + 9x + 9y + 14$

(19) $(x + y + 5)(x + y - 6)$
$= x^2 + 2xy + y^2 - x - y - 30$

(20) $(x - 1)(x + 3)(x + 5)$
$= x^3 + 7x^2 + 7x - 15$

式の展開 3項・工夫（20問）　版Gの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + y + 4)(x + y + 6)$
$= x^2 + 2xy + y^2 + 10x + 10y + 24$

(2) $(x + 1)(x - 1)(x - 2)$
$= x^3 - 2x^2 - x + 2$

(3) $(x + y - 5)(x + y - 4)$
$= x^2 + 2xy + y^2 - 9x - 9y + 20$

(4) $(x^2 + 4x - 3)(x^2 - 4x - 3)$
$= x^4 - 22x^2 + 9$

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

(6) $(x + 2)(x - 2)(x^2 + 4)$
$= x^4 - 16$

(7) $(x - 2y + 3)^2$
$= x^2 - 4xy + 4y^2 + 6x - 12y + 9$

(8) $(x + y - 1)(x + y + 1)$
$= x^2 + 2xy + y^2 - 1$

(9) $(x + 3)(x - 3)(x^2 + 9)$
$= x^4 - 81$

(10) $(x^2 + 4x + 4)(x^2 - 4x + 4)$
$= x^4 - 8x^2 + 16$

(11) $(x - 1)(x + 2)(x + 5)$
$= x^3 + 6x^2 + 3x - 10$

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

(13) $(x^2 + 2x - 3)(x^2 - 2x - 3)$
$= x^4 - 10x^2 + 9$

(14) $(x + y + 2)(x + y + 7)$
$= x^2 + 2xy + y^2 + 9x + 9y + 14$

(15) $(x + 3y + 3)^2$
$= x^2 + 6xy + 9y^2 + 6x + 18y + 9$

(16) $(x - 4)(x - 5)(x + 5)$
$= x^3 - 4x^2 - 25x + 100$

(17) $(x - 2y - 1)^2$
$= x^2 - 4xy + 4y^2 - 2x + 4y + 1$

(18) $(x - 1)(x - 2)(x + 4)$
$= x^3 + x^2 - 10x + 8$

(19) $(x - y + 3)^2$
$= x^2 - 2xy + y^2 + 6x - 6y + 9$

(20) $(x + y - 4)(x + y - 7)$
$= x^2 + 2xy + y^2 - 11x - 11y + 28$

式の展開 3項・工夫（20問）　版Hの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + y + 4)^2$

$= x^2 + 2xy + y^2 + 8x + 8y + 16$

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

$= x^4 + 3x^2 + 4$

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

$= x^2 - 2xy + y^2 + 4x - 4y + 4$

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

$= x^4 - 8x^2 + 4$

(5) $(x + y - 1)(x + y + 6)$

$= x^2 + 2xy + y^2 + 5x + 5y - 6$

(6) $(x + 4)(x - 4)(x^2 + 16)$

$= x^4 - 256$

(7) $(x + 2)(x - 2)(x^2 + 4)$

$= x^4 - 16$

(8) $(x + y + 6)(x + y + 2)$

$= x^2 + 2xy + y^2 + 8x + 8y + 12$

(9) $(x^2 + 3x - 1)(x^2 - 3x - 1)$

$= x^4 - 11x^2 + 1$

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

$= x^2 - 4xy + 4y^2 - 4x + 8y + 4$

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

$= x^2 + 6xy + 9y^2 + 10x + 30y + 25$

(12) $(x + y + 2)(x + y - 2)$

$= x^2 + 2xy + y^2 - 4$

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

$= x^2 - 2xy + y^2 - 10x + 10y + 25$

(14) $(x + 1)(x + 2)(x - 3)$

$= x^3 - 7x - 6$

(15) $(x + 1)(x - 3)(x - 5)$

$= x^3 - 7x^2 + 7x + 15$

(16) $(x + y - 5)(x + y - 2)$

$= x^2 + 2xy + y^2 - 7x - 7y + 10$

(17) $(x + 2)(x - 4)(x + 5)$

$= x^3 + 3x^2 - 18x - 40$

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

$= x^3 - 4x^2 - 7x + 10$

(19) $(x + y + 4)(x + y + 2)$

$= x^2 + 2xy + y^2 + 6x + 6y + 8$

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

$= x^4 - 81$

式の展開 3項・工夫（20問）　版Iの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

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

$= x^4 - 6x^2 + 1$

(2) $(x - 3y + 1)^2$

$= x^2 - 6xy + 9y^2 + 2x - 6y + 1$

(3) $(x + 4)(x - 4)(x^2 + 16)$

$= x^4 - 256$

(4) $(x + y + 3)(x + y - 7)$

$= x^2 + 2xy + y^2 - 4x - 4y - 21$

(5) $(x + y + 3)(x + y - 5)$

$= x^2 + 2xy + y^2 - 2x - 2y - 15$

(6) $(x + 3)(x - 4)(x - 5)$

$= x^3 - 6x^2 - 7x + 60$

(7) $(x + 1)(x - 1)(x^2 + 1)$

$= x^4 - 1$

(8) $(x + y + 1)(x + y + 3)$

$= x^2 + 2xy + y^2 + 4x + 4y + 3$

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

$= x^3 + 9x^2 + 26x + 24$

(10) $(x + y + 5)^2$

$= x^2 + 2xy + y^2 + 10x + 10y + 25$

(11) $(x + 2)(x - 4)(x + 5)$

$= x^3 + 3x^2 - 18x - 40$

(12) $(x + y - 6)(x + y - 2)$

$= x^2 + 2xy + y^2 - 8x - 8y + 12$

(13) $(x^2 + 3x + 1)(x^2 - 3x + 1)$

$= x^4 - 7x^2 + 1$

(14) $(x^2 + 4x + 2)(x^2 - 4x + 2)$

$= x^4 - 12x^2 + 4$

(15) $(x + 3y + 1)^2$

$= x^2 + 6xy + 9y^2 + 2x + 6y + 1$

(16) $(x + y + 5)(x + y - 3)$

$= x^2 + 2xy + y^2 + 2x + 2y - 15$

(17) $(x + 2)(x - 4)(x + 4)$

$= x^3 + 2x^2 - 16x - 32$

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

$= x^4 - 81$

(19) $(x - y - 1)^2$

$= x^2 - 2xy + y^2 - 2x + 2y + 1$

(20) $(x - 3y + 5)^2$

$= x^2 - 6xy + 9y^2 + 10x - 30y + 25$

式の展開 3項・工夫（20問）　版Jの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + 4)(x - 4)(x^2 + 16)$
$= x^4 - 256$

(2) $(x + 3)(x - 3)(x^2 + 9)$
$= x^4 - 81$

(3) $(x^2 + 4x - 4)(x^2 - 4x - 4)$
$= x^4 - 24x^2 + 16$

(4) $(x + 2y - 1)^2$
$= x^2 + 4xy + 4y^2 - 2x - 4y + 1$

(5) $(x + y - 6)(x + y - 7)$
$= x^2 + 2xy + y^2 - 13x - 13y + 42$

(6) $(x + 2)(x - 2)(x^2 + 4)$
$= x^4 - 16$

(7) $(x + y + 4)(x + y - 6)$
$= x^2 + 2xy + y^2 - 2x - 2y - 24$

(8) $(x - 3y - 3)^2$
$= x^2 - 6xy + 9y^2 - 6x + 18y + 9$

(9) $(x^2 + x - 4)(x^2 - x - 4)$
$= x^4 - 9x^2 + 16$

(10) $(x + y - 2)(x + y + 7)$
$= x^2 + 2xy + y^2 + 5x + 5y - 14$

(11) $(x + y - 3)(x + y - 6)$
$= x^2 + 2xy + y^2 - 9x - 9y + 18$

(12) $(x^2 + x + 5)(x^2 - x + 5)$
$= x^4 + 9x^2 + 25$

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

(14) $(x - 1)(x - 2)(x + 5)$
$= x^3 + 2x^2 - 13x + 10$

(15) $(x - 1)(x + 2)(x - 4)$
$= x^3 - 3x^2 - 6x + 8$

(16) $(x + y - 1)(x + y - 2)$
$= x^2 + 2xy + y^2 - 3x - 3y + 2$

(17) $(x - 3y - 2)^2$
$= x^2 - 6xy + 9y^2 - 4x + 12y + 4$

(18) $(x + 2y - 3)^2$
$= x^2 + 4xy + 4y^2 - 6x - 12y + 9$

(19) $(x - 3)(x + 3)(x - 4)$
$= x^3 - 4x^2 - 9x + 36$

(20) $(x + 1)(x + 3)(x + 4)$
$= x^3 + 8x^2 + 19x + 12$

式の展開 3項・工夫（20問）　版Kの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x - 2y - 3)^2$
$= x^2 - 4xy + 4y^2 - 6x + 12y + 9$

(2) $(x^2 + x - 1)(x^2 - x - 1)$
$= x^4 - 3x^2 + 1$

(3) $(x - 2y - 4)^2$
$= x^2 - 4xy + 4y^2 - 8x + 16y + 16$

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

(5) $(x - 1)(x + 2)(x + 3)$
$= x^3 + 4x^2 + x - 6$

(6) $(x - y + 3)^2$
$= x^2 - 2xy + y^2 + 6x - 6y + 9$

(7) $(x^2 + 4x - 5)(x^2 - 4x - 5)$
$= x^4 - 26x^2 + 25$

(8) $(x + 1)(x + 4)(x + 5)$
$= x^3 + 10x^2 + 29x + 20$

(9) $(x + y + 5)(x + y - 3)$
$= x^2 + 2xy + y^2 + 2x + 2y - 15$

(10) $(x + 2)(x - 2)(x^2 + 4)$
$= x^4 - 16$

(11) $(x + y - 6)(x + y + 3)$
$= x^2 + 2xy + y^2 - 3x - 3y - 18$

(12) $(x + 2)(x + 4)(x - 5)$
$= x^3 + x^2 - 22x - 40$

(13) $(x + y - 3)^2$
$= x^2 + 2xy + y^2 - 6x - 6y + 9$

(14) $(x + 3)(x - 3)(x^2 + 9)$
$= x^4 - 81$

(15) $(x - 1)(x - 3)(x - 5)$
$= x^3 - 9x^2 + 23x - 15$

(16) $(x + y + 6)(x + y - 7)$
$= x^2 + 2xy + y^2 - x - y - 42$

(17) $(x + 1)(x - 1)(x^2 + 1)$
$= x^4 - 1$

(18) $(x + y + 1)(x + y + 7)$
$= x^2 + 2xy + y^2 + 8x + 8y + 7$

(19) $(x + y + 4)(x + y - 3)$
$= x^2 + 2xy + y^2 + x + y - 12$

(20) $(x - y - 1)^2$
$= x^2 - 2xy + y^2 - 2x + 2y + 1$

式の展開 3項・工夫（20問）　版Lの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

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

$= x^4 - 6x^2 + 1$

(2) $(x - 2y - 1)^2$

$= x^2 - 4xy + 4y^2 - 2x + 4y + 1$

(3) $(x + 2y + 1)^2$

$= x^2 + 4xy + 4y^2 + 2x + 4y + 1$

(4) $(x + y + 4)(x + y + 2)$

$= x^2 + 2xy + y^2 + 6x + 6y + 8$

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

$= x^2 - 4xy + 4y^2 + 10x - 20y + 25$

(6) $(x + y + 7)(x + y - 3)$

$= x^2 + 2xy + y^2 + 4x + 4y - 21$

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

$= x^3 - 4x^2 - 7x + 10$

(8) $(x + 4)(x - 4)(x^2 + 16)$

$= x^4 - 256$

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

$= x^2 + 2xy + y^2 + 8x + 8y + 16$

(10) $(x + 2)(x - 2)(x^2 + 4)$

$= x^4 - 16$

(11) $(x + y - 5)(x + y - 7)$

$= x^2 + 2xy + y^2 - 12x - 12y + 35$

(12) $(x^2 + 2x + 3)(x^2 - 2x + 3)$

$= x^4 + 2x^2 + 9$

(13) $(x - 1)(x + 3)(x + 5)$

$= x^3 + 7x^2 + 7x - 15$

(14) $(x + 2y - 2)^2$

$= x^2 + 4xy + 4y^2 - 4x - 8y + 4$

(15) $(x - 1)(x - 3)(x - 5)$

$= x^3 - 9x^2 + 23x - 15$

(16) $(x + 1)(x - 1)(x^2 + 1)$

$= x^4 - 1$

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

$= x^3 + 9x^2 + 26x + 24$

(18) $(x + y - 1)(x + y + 3)$

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

(19) $(x + y - 2)(x + y + 6)$

$= x^2 + 2xy + y^2 + 4x + 4y - 12$

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

$= x^4 - 19x^2 + 25$

式の展開 3項・工夫（20問）　版Mの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

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

$= x^4 - 81$

(2) $(x + 2y + 2)^2$

$= x^2 + 4xy + 4y^2 + 4x + 8y + 4$

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

$= x^3 - x^2 - 4x + 4$

(4) $(x + 1)(x + 3)(x + 4)$

$= x^3 + 8x^2 + 19x + 12$

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

$= x^4 - 625$

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

$= x^4 + 4$

(7) $(x + y - 4)(x + y + 6)$

$= x^2 + 2xy + y^2 + 2x + 2y - 24$

(8) $(x - 3)(x - 5)(x + 5)$

$= x^3 - 3x^2 - 25x + 75$

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

$= x^4 - 6x^2 + 25$

(10) $(x + 1)(x - 1)(x^2 + 1)$

$= x^4 - 1$

(11) $(x^2 + x - 3)(x^2 - x - 3)$

$= x^4 - 7x^2 + 9$

(12) $(x + y - 7)(x + y + 5)$

$= x^2 + 2xy + y^2 - 2x - 2y - 35$

(13) $(x + y - 1)(x + y - 3)$

$= x^2 + 2xy + y^2 - 4x - 4y + 3$

(14) $(x - 3y - 1)^2$

$= x^2 - 6xy + 9y^2 - 2x + 6y + 1$

(15) $(x + y - 7)(x + y + 1)$

$= x^2 + 2xy + y^2 - 6x - 6y - 7$

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

$= x^2 + 6xy + 9y^2 + 10x + 30y + 25$

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

$= x^2 + 2xy + y^2 - 6x - 6y + 9$

(18) $(x + y + 2)^2$

$= x^2 + 2xy + y^2 + 4x + 4y + 4$

(19) $(x + y - 7)(x + y - 2)$

$= x^2 + 2xy + y^2 - 9x - 9y + 14$

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

$= x^3 + 10x^2 + 31x + 30$

式の展開 3項・工夫（20問）　版Nの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x-1)(x-4)(x+4)$

$= x^3 - x^2 - 16x + 16$

(2) $(x+y+2)(x+y+3)$

$= x^2 + 2xy + y^2 + 5x + 5y + 6$

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

$= x^3 - 4x^2 - 7x + 10$

(4) $(x+y+3)(x+y-2)$

$= x^2 + 2xy + y^2 + x + y - 6$

(5) $(x^2+3x+1)(x^2-3x+1)$

$= x^4 - 7x^2 + 1$

(6) $(x-3y-4)^2$

$= x^2 - 6xy + 9y^2 - 8x + 24y + 16$

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

$= x^2 - 2xy + y^2 - 4x + 4y + 4$

(8) $(x+y+2)(x+y-4)$

$= x^2 + 2xy + y^2 - 2x - 2y - 8$

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

$= x^2 - 4xy + 4y^2 + 10x - 20y + 25$

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

$= x^3 + 6x^2 + 3x - 10$

(11) $(x-y+4)^2$

$= x^2 - 2xy + y^2 + 8x - 8y + 16$

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

$= x^2 + 6xy + 9y^2 + 10x + 30y + 25$

(13) $(x+y-6)(x+y+6)$

$= x^2 + 2xy + y^2 - 36$

(14) $(x+2)(x-3)(x-5)$

$= x^3 - 6x^2 - x + 30$

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

$= x^4 - 6x^2 + 25$

(16) $(x^2+4x+1)(x^2-4x+1)$

$= x^4 - 14x^2 + 1$

(17) $(x+4)(x-4)(x^2+16)$

$= x^4 - 256$

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

$= x^4 - 625$

(19) $(x+1)(x-1)(x^2+1)$

$= x^4 - 1$

(20) $(x+y-3)(x+y+3)$

$= x^2 + 2xy + y^2 - 9$

式の展開 3項・工夫（20問）　版Oの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + y - 2)(x + y - 5)$
$= x^2 + 2xy + y^2 - 7x - 7y + 10$

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

(3) $(x + y - 1)(x + y + 7)$
$= x^2 + 2xy + y^2 + 6x + 6y - 7$

(4) $(x^2 + 3x + 1)(x^2 - 3x + 1)$
$= x^4 - 7x^2 + 1$

(5) $(x - 2)(x + 3)(x - 4)$
$= x^3 - 3x^2 - 10x + 24$

(6) $(x + 3)(x - 3)(x^2 + 9)$
$= x^4 - 81$

(7) $(x^2 + x + 1)(x^2 - x + 1)$
$= x^4 + x^2 + 1$

(8) $(x - 3)(x + 4)(x - 5)$
$= x^3 - 4x^2 - 17x + 60$

(9) $(x + 1)(x - 2)(x - 3)$
$= x^3 - 4x^2 + x + 6$

(10) $(x + y - 2)(x + y - 3)$
$= x^2 + 2xy + y^2 - 5x - 5y + 6$

(11) $(x + y - 3)^2$
$= x^2 + 2xy + y^2 - 6x - 6y + 9$

(12) $(x^2 + x - 1)(x^2 - x - 1)$
$= x^4 - 3x^2 + 1$

(13) $(x + 1)(x - 1)(x^2 + 1)$
$= x^4 - 1$

(14) $(x + y + 2)(x + y + 4)$
$= x^2 + 2xy + y^2 + 6x + 6y + 8$

(15) $(x + y - 5)(x + y + 6)$
$= x^2 + 2xy + y^2 + x + y - 30$

(16) $(x - 2y - 4)^2$
$= x^2 - 4xy + 4y^2 - 8x + 16y + 16$

(17) $(x + 2)(x - 2)(x - 4)$
$= x^3 - 4x^2 - 4x + 16$

(18) $(x + 2y + 1)^2$
$= x^2 + 4xy + 4y^2 + 2x + 4y + 1$

(19) $(x + 2)(x - 2)(x^2 + 4)$
$= x^4 - 16$

(20) $(x - 3y - 4)^2$
$= x^2 - 6xy + 9y^2 - 8x + 24y + 16$

式の展開 3項・工夫（20問）　版Pの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x + y + 1)(x + y + 6)$

$= x^2 + 2xy + y^2 + 7x + 7y + 6$

(2) $(x - 1)(x + 4)(x + 5)$

$= x^3 + 8x^2 + 11x - 20$

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

$= x^3 + 2x^2 - 25x - 50$

(4) $(x + y + 1)(x + y + 3)$

$= x^2 + 2xy + y^2 + 4x + 4y + 3$

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

$= x^4 + 2x^2 + 9$

(6) $(x + y - 3)^2$

$= x^2 + 2xy + y^2 - 6x - 6y + 9$

(7) $(x + y - 1)(x + y + 3)$

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

(8) $(x + 1)(x - 1)(x^2 + 1)$

$= x^4 - 1$

(9) $(x + 2y + 2)^2$

$= x^2 + 4xy + 4y^2 + 4x + 8y + 4$

(10) $(x + 2y + 5)^2$

$= x^2 + 4xy + 4y^2 + 10x + 20y + 25$

(11) $(x + 2)(x - 3)(x + 4)$

$= x^3 + 3x^2 - 10x - 24$

(12) $(x - y + 1)^2$

$= x^2 - 2xy + y^2 + 2x - 2y + 1$

(13) $(x + y + 2)(x + y - 1)$

$= x^2 + 2xy + y^2 + x + y - 2$

(14) $(x^2 + 4x + 2)(x^2 - 4x + 2)$

$= x^4 - 12x^2 + 4$

(15) $(x - 1)(x + 4)(x - 5)$

$= x^3 - 2x^2 - 19x + 20$

(16) $(x + y - 2)(x + y + 6)$

$= x^2 + 2xy + y^2 + 4x + 4y - 12$

(17) $(x + 2y - 4)^2$

$= x^2 + 4xy + 4y^2 - 8x - 16y + 16$

(18) $(x^2 + 3x + 3)(x^2 - 3x + 3)$

$= x^4 - 3x^2 + 9$

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

$= x^4 - 625$

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

$= x^4 - 81$

式の展開 3項・工夫（20問）　版Qの答え

※ 置き換えの問題は、x + y を1つの文字と見て展開したかを見てください。

---

(1) $(x-3)(x-5)(x+5)$
$= x^3 - 3x^2 - 25x + 75$

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

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

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

(5) $(x-1)(x-4)(x-5)$
$= x^3 - 10x^2 + 29x - 20$

(6) $(x^2+4x+5)(x^2-4x+5)$
$= x^4 - 6x^2 + 25$

(7) $(x+5)(x-5)(x^2+25)$
$= x^4 - 625$

(8) $(x-y-4)^2$
$= x^2 - 2xy + y^2 - 8x + 8y + 16$

(9) $(x+y+2)(x+y-7)$
$= x^2 + 2xy + y^2 - 5x - 5y - 14$

(10) $(x+y-2)(x+y+4)$
$= x^2 + 2xy + y^2 + 2x + 2y - 8$

(11) $(x+y+3)^2$
$= x^2 + 2xy + y^2 + 6x + 6y + 9$

(12) $(x+y+3)(x+y-6)$
$= x^2 + 2xy + y^2 - 3x - 3y - 18$

(13) $(x+y+6)(x+y+3)$
$= x^2 + 2xy + y^2 + 9x + 9y + 18$

(14) $(x+1)(x-1)(x^2+1)$
$= x^4 - 1$

(15) $(x-3)(x+3)(x+4)$
$= x^3 + 4x^2 - 9x - 36$

(16) $(x^2+4x-2)(x^2-4x-2)$
$= x^4 - 20x^2 + 4$

(17) $(x-1)(x+2)(x+5)$
$= x^3 + 6x^2 + 3x - 10$

(18) $(x+3)(x-3)(x^2+9)$
$= x^4 - 81$

(19) $(x+y+7)(x+y-2)$
$= x^2 + 2xy + y^2 + 5x + 5y - 14$

(20) $(x-2y-3)^2$
$= x^2 - 4xy + 4y^2 - 6x + 12y + 9$