

Ontbind in factoren.

1) $a^2 + 2ab + b^2 = (a+b)^2$

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

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

4) $a^2 - 2ab + b^2 = (a-b)^2$

5) $25x^2 - 10x + 1 = (5x-1)^2$

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

12) $25x^4 - 20x^2 + 4 = (5x^2-2)^2$

13) $81p^2 + 90pq + 25q^2 = (9p+5q)^2$

14) $144p^2 - 24p + 1 = (12p-1)^2$

15) $225a^2 + 30a + 1 = (15a+1)^2$

21) $81x^4 - 90x^2y + 25y^2 = (9x^2-5y)^2$

22) $25x^6 + 120x^3y^3 + 144y^6 = (5x^3+12y^3)^2$

23) $2x^4 - 8x^2 + 8 = 2(x^4 - 4x^2 + 4)$
 $= 2(x^2-2)^2$

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

25) $-50a^2 - 20a - 2 = -2(25a^2 + 10a + 1)$
 $= -2(5a+1)^2$

6) $64x^2 - 48x + 9 = (8x-3)^2$

7) $a^2 - 20a + 100 = (a-10)^2$

8) $49c^2 + 28cd + 4d^2 = (7c+2d)^2$

9) $c^2 + 10c + 25 = (c+5)^2$

10) $4a^2 - 20ab + 25b^2 = (2a-5b)^2$

16) $121 + 22x + x^2 = x^2 + 22x + 121 = (x+11)^2$

17) $100x^2 - 140xy + 49y^2 = (10x-7y)^2$

18) $121x^4 + 132x^2 + 36 = (11x^2+6)^2$

19) $36 + 132a^2 + 121a^4 = 121a^4 + 132a^2 + 36 = (11a^2+6)^2$

20) $9p^4 - 6p^2 + 1 = (3p^2-1)^2$

26) $12a^2b - 36ab^2 + 27b^3 = 3b(4a^2 - 12ab + 9b^2)$
 $= 3b(2a-3b)^2$

27) $-9x^3y + 30x^2y^2 - 25xy^3 = -xy(9x^2 - 30xy + 25y^2)$
 $= -xy(3x-5y)^2$

28) $3p^3 + 36p^2 + 108p = 3p(p^2 + 12p + 36)$
 $= 3p(p+6)^2$

29) $x^8 - 32x^4 + 256 = (x^4-16)^2$

30) $-2x^5 + 48x^3 - 288x = -2x(x^4 - 24x^2 + 144)$
 $= -2x(x^2-12)^2$

