

Descomposici3n de formas can3nicas

a)

$$\begin{array}{r|l} 170 & 2 \\ 85 & 5 \\ 17 & 17 \end{array} \left. \vphantom{\begin{array}{r|l} 170 \\ 85 \\ 17 \end{array}} \right\} 3\text{-DP}$$

$$\begin{aligned} C.D. &= 2^1 \cdot 5^1 \cdot 17^1 \\ &= (1+1)(1+1)(1+1) \\ &= 2 \cdot 2 \cdot 2 \\ &= 8 \end{aligned}$$

$$\begin{aligned} CD &= DP + DC + 1 \\ 8 &= 3 + DC + 1 \\ 8 - 4 &= DC \\ 4 &= DC \end{aligned}$$

b)

$$\begin{array}{r|l} 729 & 3 \\ 243 & 3 \\ 81 & 3 \\ 27 & 3 \\ 9 & 3 \\ 3 & 3 \\ 1 & 3 \end{array} \left. \vphantom{\begin{array}{r|l} 729 \\ 243 \\ 81 \\ 27 \\ 9 \\ 3 \\ 1 \end{array}} \right\} 7\text{-DP}$$

$$\begin{aligned} CD &= 3^6 \\ &= 6 + 1 \\ &= 7 \end{aligned}$$

$$\begin{aligned} CD &= DP + DC + 1 \\ 7 &= 1 + 1 + DC \\ 7 - 2 &= DC \\ 5 &= DC \end{aligned}$$

c)

$$\begin{array}{r|l} 5400 & 2 \\ 2700 & 2 \\ 1350 & 2 \\ 675 & 3 \\ 125 & 5 \\ 25 & 5 \\ 5 & 5 \\ 1 & 5 \end{array} \left. \vphantom{\begin{array}{r|l} 5400 \\ 2700 \\ 1350 \\ 675 \\ 125 \\ 25 \\ 5 \\ 1 \end{array}} \right\} 3\text{-DP}$$

$$\begin{aligned} CD &= 2^3 \cdot 3^1 \cdot 5^2 \\ &= (3+1)(1+1)(2+1) \\ &= 4 \cdot 2 \cdot 3 \\ &= 24 \end{aligned}$$

$$\begin{aligned} CD &= DP + DC + 1 \\ 24 - 4 &= DC \\ 20 &= DC \end{aligned}$$

d)

1	5	4	0	2
	7	7	0	2
	3	8	5	5
		7	7	7
		1	1	11
			1	

4-DP

$$CD = 2^2 \cdot 5 \cdot 7 \cdot 11$$

$$= (2+1)(1+1)(1+1)(1+1)$$

$$= 3 \cdot 2 \cdot 2 \cdot 2$$

$$= 24$$

$$CD = DP + DC + 1$$

$$24 = 4 + DC + 1$$

$$24 - 5 = DC$$

$$19 = DC$$

e)

9	6	0	2
4	8	0	2
2	4	0	2
	2	0	2
		6	2
		3	2
		1	5
			5
			1

3-DP

$$CD = 2^6 \cdot 3 \cdot 5$$

$$= (6+1)(3+1)(1+1)$$

$$= 7 \cdot 4$$

$$= 28$$

$$CD = DP + DC + 1$$

$$28 = 3 + DC + 1$$

$$24 = DC$$