

* Decrypt

$$\text{Diketahui } d = 1019$$

$$n = 3337$$

$$D_5 = 1731^{1019} \bmod 3337$$

$$\text{Jawab: } 1731^2 \bmod 3337 = 3072$$

$$1731^5 \bmod 3337 = 2576$$

$$1731^{10} \bmod 3337 = 1820$$

$$1731^{50} \bmod 3337 = 900$$

$$1731^{100} \bmod 3337 = 2446$$

$$1731^{250} \bmod 3337 = 1156$$

$$1731^{500} \bmod 3337 = 1536$$

$$1731^{1000} \bmod 3337 = 37$$

$$1731^{1019} = 37 \cdot 1820 \cdot 2576 \cdot 148 \bmod 3337$$

$$= 787$$

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* Encrypt

Diketahui : $e = 79$

$$m_5 = 787$$

$$C_5 = 787^{79} \bmod 3337$$

Jawab :

$$\Rightarrow 787^2 \bmod 3337 = 2021$$

$$\Rightarrow 787^6 \bmod 3337 = 2565$$

$$\Rightarrow 787^{21} \bmod 3337 = 3039$$

$$\Rightarrow 787^{24} \bmod 3337 = 952$$

$$\Rightarrow 787^{28} \bmod 3337 = 1800$$

$$\Rightarrow 787^{79} \bmod 3337 = 1731$$

$$C_5 = \underline{\underline{1731}}$$