

$$4(i) \quad 4^3 = 64, \quad 3^4 = 81$$

$$\therefore 3^4 > 4^3$$

$$\therefore 81 > 64$$

$$(ii) \quad 5^3 = 125, \quad 3^5 = 243$$

$$\therefore 3^5 > 5^3$$

$$\therefore 243 > 125$$

$$(iii) \quad 2^8 = 256, \quad 8^2 = 64$$

$$\therefore 2^8 > 8^2$$

$$\therefore 256 > 64$$

$$(iv) \quad 100^2 = 10000$$

$$2^{100} = 2^{14} \times 2^{86}$$

$$= 16384 \times 2^{86}$$

$$\therefore 2^{100} > 100^2$$

$$\therefore 16384 > 10000$$

$$(v) \quad 2^{10} = 1024, \quad 10^2 = 100$$

$$\therefore 2^{10} > 10^2$$

$$\therefore 1024 > 100$$