网络安全技术课堂作业五

朱浩泽 1911530 计算机科学与技术

1.
$$C = M^e \mod n = 89^7 \mod 187 = 166$$

2.
$$\phi(187) = 10 \times 16 = 160$$

$$d = e^{-1} \mod 160 = 23$$

$$\therefore M = C^d \mod n = 163^{23} \mod 187 = 89$$

3.
$$C = M^e \mod n = 88^7 \mod 187 = 11$$

$$\because 88 \mod 11 = 0 \land 187 \mod 11 = 0$$

$$:: C$$
可以分解 $n = 187$