

2.9.3

$$(1) \quad 8 \times 2 + 15(-1) = 1 \quad ||$$

$$8 \times 2 \times 2 + 15 \times (-1) \times 5$$

$$= 32 - 75$$

$$= -43$$

12

$$-43 \equiv 5 \pmod{8}$$

$$-43 \equiv 2 \pmod{15} \quad \times 10, 7, 13.$$

$$(2) \quad 35 \times 11 + 24(-16) = 1 \quad ||$$

$$35 \times 11 \times 5 + 24 \times (-16) \times 4$$

$$= 175 \times 11 + 96 \times (-16)$$

$$= 1925 - 1600 + 64$$

$$= 325 + 64$$

$$= 389$$

12.

$$389 \equiv 4 \pmod{35}$$

$$389 \equiv 5 \pmod{24} \quad \times 10, 7, 13.$$