

Quiz 19

$$280 = 217 + 63$$

$$217 = 3 \cdot 63 + 28$$

$$63 = 2 \cdot 28 + 7$$

$$28 = 4 \cdot 7$$

1. ① $280 = 217 + 63$

② $217 = 3 \cdot 63 + 28$

③ $63 = 2 \cdot 28 + \textcircled{7} = \text{gcd}$
 $28 = 4 \cdot 7 + 0$

2. $7 = 63 - 2(28) \stackrel{\textcircled{2}}{=} 63 - 2(217 - 3 \cdot 63)$

$$= -2(217) + 7(63) \stackrel{\textcircled{1}}{=}$$

$$-2(217) + 7(280 - 217) =$$

$$7(280) - 9(217)$$

$$\uparrow$$

 $m = 7$

$$\uparrow$$

 $n = -9$

3. No, $\text{gcd} = 7 \neq 1$.