

Sarah Magno

## Attendance Quiz for Lecture 7

Part I:

- ① What does the A in RSA stand for?

Leonard Adleman

- ② Who discovered an algorithm to factorize integers using quantum computers?

Peter Shor

Part II:

- ①  $\gcd(13, 10)$

$$13 = 10(1) + 3$$

$$10 = 3(3) + 1$$

$$1 = 10 - 3(3)$$

$$1 = 10 + 3(-3)$$

$$1 = 10 + [(13 - 10(1))(-3)] \quad \text{since } 13 = 10(1) + 3$$

$$1 = 10 + [13 + 10(-1)](-3)$$

$$1 = 10 + 13(-3) + 10(3)$$

$$1 = 10(4) + 13(-3)$$

I give the cashier four 10-dollar coins, the cashier returns three 13-dollar coins to me.