

**PART I:** Suppose you had an entity with the following attributes:

INV\_NUMBER, LINE\_NUMBER, INV\_DATE, CUS\_CODE, P\_CODE, P\_PRICE, P\_DESCRIPTION, LINE\_UNITS, LINE\_PRICE, V\_CODE, V\_NAME

where (INV\_NUMBER, LINE\_NUMBER) is a composite primary key.

Answer the following questions:

1. Identify all partial dependencies:
  - LINE\_NUMBER --> LINE\_UNITS
  - LINE\_NUMBER --> LINE\_PRICE
2. Identify all transitive dependencies:
  - None because it is 3NF

**Part II:** Assume that the Crow's Foot ERD shown below is in 3NF:

3. Identify all partial dependencies.
  - LINE\_NUMBER --> LINE\_UNITS
  - LINE\_NUMBER --> LINE\_PRICE
4. Identify all transitive dependencies.
  - None because it is 3NF
5. List the relations from the 3NF Crow's Foot ERD below.
  - **CUSTOMER** (CUS\_CODE, CUS\_LNAME, CUS\_AREACODE, CUS\_INITIAL, CUS\_BALANCE, CUS\_PHONE, CUS\_FNAME)
  - **INVOICE** (INV\_NUMBER, INV\_DATE, CUS\_CODE)
  - **LINE** (INV\_NUMBER, LINE\_NUMBER, LINE\_UNITS, P\_CODE, LINE\_PRICE)
  - **PRODUCT** (P\_CODE, P\_QOH, P\_DISCOUNT, V\_CODE, P\_PRICE, P\_MIN, P\_DESCRIPTION, P\_INDATE)
  - **VENDOR** (V\_CODE, V\_NAME, V\_CONTACT, V\_PHONE, V\_ORDER, V\_STATE, V\_AREACODE)
6. List the primary keys and the foreign keys associated with the different relations:

CUS\_CODE, INV\_NUMBER, LINE\_NUMBER, LINE\_NUMBER, P\_CODE, V\_CODE