

Identify the equivalence partitions for this function. **Note that you are not required to create concrete test cases.** You only need to generate the equivalence partitions. [18]

Month:

- E1: month has 30 days, E2: month has 31 days, E3: February, E4 ≥ 13 ,
- E5: ≤ 0 , E6: empty, E7: any non-integer

Day

- E1: $1 \leq \text{day} \leq 28$, E2: $1 \leq \text{day} \leq 29$, E3: $1 \leq \text{day} \leq 30$,
E4: $1 \leq \text{day} \leq 31$, E5: $\text{day} \geq 32$, E6: $\text{day} \leq 0$, E7: empty, E8: any non-integer

OR E1: $1 \leq \text{day} \leq 28$, E2: $\text{day} = 29$, E3: $\text{day} = 30$, E4: $\text{day} = 31$, E5: $\text{day} \geq 32$,
E6: $\text{day} \leq 0$, E7: empty, E8: any non-integer

Year

- E1: $\text{year} = 1900$;
- E2: $(1812 \leq \text{year} \leq 2020) \text{ AND } (\text{year} \neq 1900) \text{ AND } (\text{year} \bmod 4 = 0)$
- E3: $(1812 \leq \text{year} \leq 2020) \text{ AND } (\text{year} \neq 1900) \text{ AND } (\text{year} \bmod 4 \neq 0)$
- E4: $\text{year} < 1812$, E5: $\text{year} > 2020$, E6: Any non-integer, E7: empty

c) Consider an insurance system that allows users to apply for insurance on their lives, and rejects over-age applicants. The system has the following specifications:

- Reject male applicants if over the age of 80 years.
- Reject female applicants if over the age of 85 years.
- Accept applicants otherwise.

Build a cause-effect graph for that system. [12]

