P2017 1:1 1

a) Select title, year from movie order by length desc limit 1;

---

b) Select name from Moviestar where not exists (select * from starsin);

---

c) Select distinct name from MovieExec, Movie, StarsIn where cert = producerC and starName like "Harrison Ford" and title = movieTitle and year = MovieYear;

2/3

Prozi 1:2 2

a) Select distinct names from movie as M1, movie as M2 where M1.title = M2.title and M1.year <> M2.year group by M1.title;

b) Select name from MovieStars as M1 where not exists (Select * from MovieStars as M2 where M1.name <> M2.name and not exists (Select * from StarsIn as S1, StarsIn as S2 where S1.movietitle=S2.movietitle and S1.movieyear=S2.movieyear and S1.Starname=M1.name and S2.Starname=M2.name))

c) Select name, avg(length) from MovieExec, Movie where cert=producerC group by cert having count(title) >= 2;

(1,513)

P2017 1:3 3

a) Select name, avg(length), count(title)
from Moviestar
leftjoin StarsIn On name = Starname
leftJoin Movie On title = movieTitle and
year = movieYear
groupby name;

b) Select name from Movieexec, Movie where
cert = Producerc group by Producerc (
Order by sum(length) desc limit 1;

c) Select Starname fromn StarsIn, movie where
movieyear = year and title = movie title
group by Starname order by Sum(length) desc
limit 1.

3/3

a) $\pi_{A,D}(\sigma_{B=D}(R \times S))$

b) $\pi_A(R \bowtie S)$

c) $\pi_A(R \bowtie (\pi_C(S)))$

2/3

P2017 111:2 13

R(ABCDEFGH)

B→C
AD→B
C→F
CE→D
FH→A
EF→H

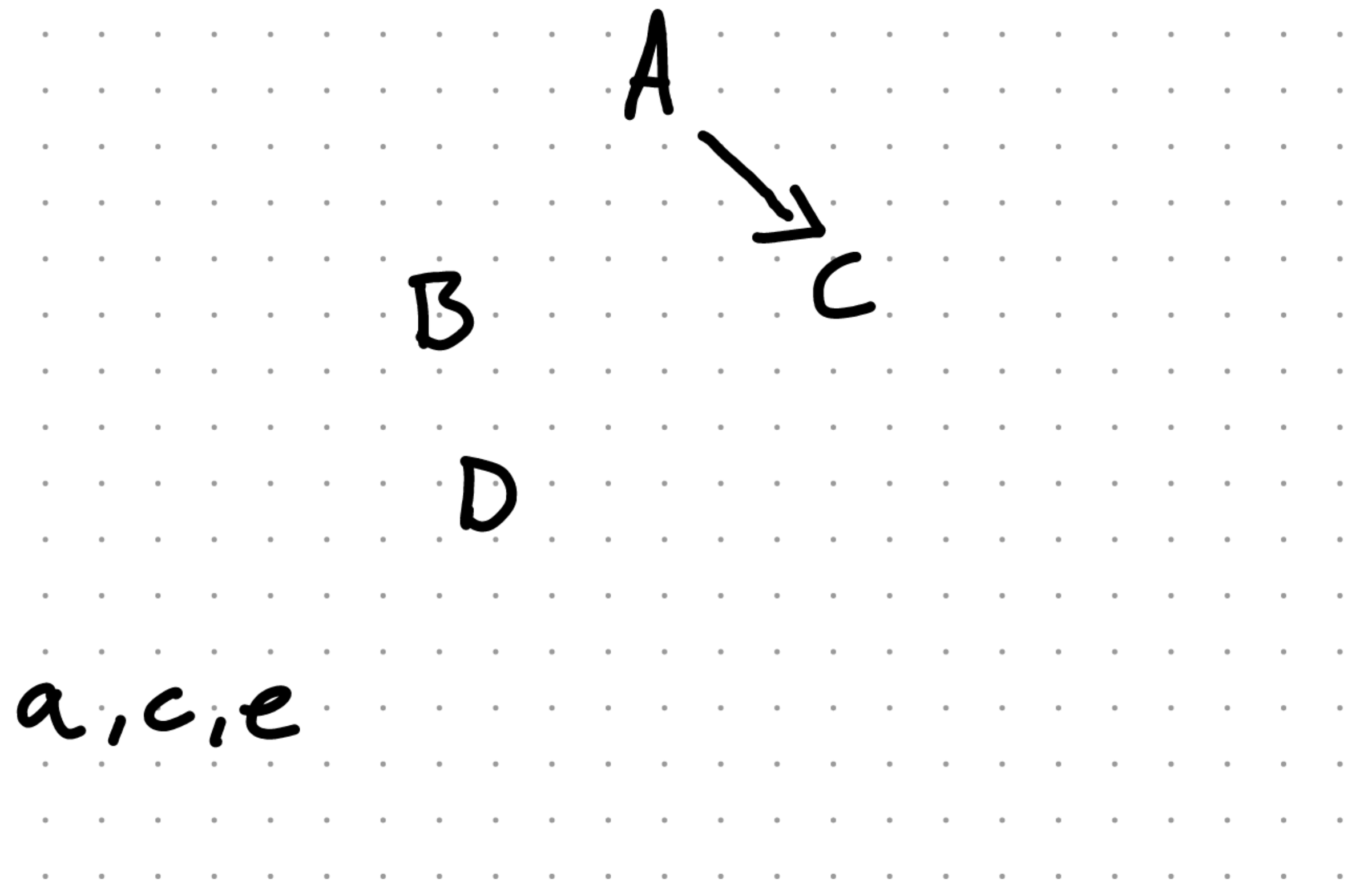
a) A-C__F G_X
b) -B⊆D EE__ ✓
c) AB⊆D EE_H ✓
d) AB⊆D__G_ X
e) A_-C__FGH X
f) -BE__FG_ X
g) -BCD_EG_ X
h) ABCDEEGH ✓

```
Create table Customers (
    SSno  VarChar(10),
    name  Varchar(32),
    addr  - " -
    Phone Varchar(16),
    Primary key(SSno));
Create table flights (
    number Varchar(32),
    Day  Date,
    aircraft varchar(32),
    Primary key(number, Day));
create table Bookings (
    row Char(4),
    seat Char(4),
    CustSSno varChar(10),
    fNum Varchar(32),
    fday  Date,
    foreign key CustSSno references
                Customers(ssno),
    foreign key (fNum, fday) references
                Flights(number, day)
```

P2017 1:4 5

d

P2017 1:5 6



a, c, e

```
Public class Prof {
 Static final Sting ucl = "Jdbc:sqlite:test.db";
 PublicStatic void main(Sting [] args)
 throws Exception E
 Java.Sql.Connection conn = Java.sql.DriverManager.
                            getConnection(null);
 Java.sql.Statement stmt = conn.createStatement();
 Stmnt.executeUpdate("Insert into MovieStar(" +
                     "'Sean Young', 'Hollywood'," +
                     "'F', '11/2015');");
 Java.Sql.ResultSet rs = stmt.executeQuery(
   "Select sum(length) from Movie ");
 While (rs.next) {System.out.println(rs.getString(1)
                 }
 rs.close();
 conn.close(); }}
```

(1/3)