CREATE TABLE course (sid INT, homework INT, project INT, exam INT, grade STR20) INSERT INTO course (sid, homework, project, exam, grade) VALUES (1, 99, 100, 100, "A") SELECT * FROM course

exam homework grade project sid

100 99 "A" 100 1

1 rows of results

INSERT INTO course (sid, homework, project, exam, grade) VALUES (2, NULL, 100, 100, "E") setField ERROR: field type not FieldType.STR20!

SELECT * FROM course

exam homework grade project sid

100 99 "A" 100 1 100 NULL "E" 100 2

2 rows of results

INSERT INTO course (sid, grade, exam, project, homework) VALUES (3, "E", 100, 100, 100) SELECT * FROM course

exam homework grade project sid

100 99 "A" 100 1 100 NULL "E" 100 2 100 100 "E" 100 3

3 rows of results

INSERT INTO course (sid, homework, project, exam, grade) SELECT * FROM course SELECT * FROM course

exam homework grade project sid "A" 100 99 100 1 100 NULL "E" 100 2 "E" 100 100 100 3 "A" 100 99 100 1

```
100 NULL "E" 100 2
100 100 "E" 100 3
```

DELETE FROM course WHERE grade = "E"
SELECT * FROM course
exam homework grade project sid

100 99 "A" 100 1

100

1

"A"

2 rows of results

99

100

INSERT INTO course (sid, homework, project, exam, grade) VALUES (4, 99, 100, 100, "B") SELECT * FROM course

| exam | homework | | grade | project sid |
|------|----------|-----|-------|-------------|
| 100 | 99 | "A" | 100 | 1 |
| 100 | 99 | "A" | 100 | 1 |
| 100 | 00 | "D" | 100 | 4 |

3 rows of results

DELETE FROM course
SELECT * FROM course

exam homework grade project sid

0 rows of results

DROP TABLE course

CREATE TABLE course (sid INT, homework INT, project INT, exam INT, grade STR20) INSERT INTO course (sid, homework, project, exam, grade) VALUES (1, 99, 100, 100, "A") INSERT INTO course (sid, homework, project, exam, grade) VALUES (3, 100, 100, 98, "C") INSERT INTO course (sid, homework, project, exam, grade) VALUES (3, 100, 69, 64, "C") INSERT INTO course (sid, homework, project, exam, grade) VALUES (15, 100, 50, 90, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (15, 100, 99, 100, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (17, 100, 100, 100, "A") INSERT INTO course (sid, homework, project, exam, grade) VALUES (2, 100, 100, 99, "B")

```
INSERT INTO course (sid, homework, project, exam, grade) VALUES (4, 100, 100, 97, "D")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (5, 100, 100, 66, "A")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (6, 100, 100, 65, "B")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (7, 100, 50, 73, "C")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (8, 50, 50, 62, "C")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (9, 50, 50, 61, "D")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (10, 50, 70, 70, "C")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (11, 50, 50, 59, "D")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (12, 0, 70, 58, "C")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (13, 0, 50, 77, "C")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (14, 50, 50, 56, "D")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
```

INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E") INSERT INTO course (sid, homework, project, exam, grade) VALUES (17, 100, 100, 100, "A")

SELECT * FROM course

| exam | homev | vork | grade | projectsid |
|------|-------|------|-------|------------|
| 100 | 99 | "A" | 100 | 1 |
| 98 | 100 | "C" | 100 | 3 |
| 64 | 100 | "C" | 69 | 3 |
| 90 | 100 | "E" | 50 | 15 |
| 100 | 100 | "E" | 99 | 15 |
| 100 | 100 | "A" | 100 | 17 |
| 99 | 100 | "B" | 100 | 2 |
| 97 | 100 | "D" | 100 | 4 |
| 66 | 100 | "A" | 100 | 5 |
| 65 | 100 | "B" | 100 | 6 |
| 73 | 100 | "C" | 50 | 7 |
| 62 | 50 | "C" | 50 | 8 |
| 61 | 50 | "D" | 50 | 9 |
| 70 | 50 | "C" | 70 | 10 |
| 59 | 50 | "D" | 50 | 11 |
| 58 | 0 | "C" | 70 | 12 |
| 77 | 0 | "C" | 50 | 13 |

| 56 | 50 | "D" | 50 | 14 |
|----|----|-----|----|----|
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |

| 0 | 0 | "E" | 0 | 16 |
|-----|-----|-----|-----|----|
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 100 | 100 | "A" | 100 | 17 |

SELECT sid, grade FROM course sid grade

1 "A"

- 3 "C"
- 3 "C"
- 15 "E"
- 15 "E"
- 17 "A"
- 2 "B"
- 4 "D"
- 5 "A"
- 6 "B"
- 7 "C"
- 8 "C"
- 9 "D"
- 10 "C"
- 11 "D"
- 12 "C"
- 13 "C"
- 14 "D"
- 16 "E"

```
16 "E"
```

58 rows of results

SELECT sid, course.grade FROM course

sid grade

- 2 "B"
- 4 "D"
- 5 "A"
- 6 "B"
- 7 "C"
- 8 "C"
- 9 "D"
- 10 "C"
- 11 "D"
- 12 "C"
- 13 "C"
- 14 "D"
- 16 "E"

```
"E"
16
      "A"
17
```

SELECT DISTINCT grade FROM course

grade "A"

"C"

"E"

"B"

"D"

5 rows of results

SELECT DISTINCT * FROM course

| exam | home | work | grade | project sid |
|------|------|------|-------|-------------|
| 100 | 99 | "A" | 100 | 1 |
| 98 | 100 | "C" | 100 | 3 |
| 64 | 100 | "C" | 69 | 3 |
| 90 | 100 | "E" | 50 | 15 |
| 100 | 100 | "E" | 99 | 15 |
| 100 | 100 | "A" | 100 | 17 |
| 99 | 100 | "B" | 100 | 2 |
| 97 | 100 | "D" | 100 | 4 |
| 66 | 100 | "A" | 100 | 5 |
| 65 | 100 | "B" | 100 | 6 |
| 73 | 100 | "C" | 50 | 7 |
| 62 | 50 | "C" | 50 | 8 |
| 61 | 50 | "D" | 50 | 9 |
| 70 | 50 | "C" | 70 | 10 |

| 59 | 50 | "D" | 50 | 11 |
|----|----|-----|----|----|
| 58 | 0 | "C" | 70 | 12 |
| 77 | 0 | "C" | 50 | 13 |
| 56 | 50 | "D" | 50 | 14 |
| 0 | 0 | "E" | 0 | 16 |

19 rows of results

SELECT * FROM course ORDER BY exam

| exam | home | work | grade | project sid |
|------|------|------|-------|-------------|
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |

| 0 | 0 | "E" | 0 | 16 |
|-----|-----|-----|-----|----|
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 0 | 0 | "E" | 0 | 16 |
| 56 | 50 | "D" | 50 | 14 |
| 58 | 0 | "C" | 70 | 12 |
| 59 | 50 | "D" | 50 | 11 |
| 61 | 50 | "D" | 50 | 9 |
| 62 | 50 | "C" | 50 | 8 |
| 64 | 100 | "C" | 69 | 3 |
| 65 | 100 | "B" | 100 | 6 |
| 66 | 100 | "A" | 100 | 5 |
| 70 | 50 | "C" | 70 | 10 |
| 73 | 100 | "C" | 50 | 7 |
| 77 | 0 | "C" | 50 | 13 |
| 90 | 100 | "E" | 50 | 15 |
| 97 | 100 | "D" | 100 | 4 |
| 98 | 100 | "C" | 100 | 3 |
| 99 | 100 | "B" | 100 | 2 |
| 100 | 99 | "A" | 100 | 1 |
| 100 | 100 | "E" | 99 | 15 |
| 100 | 100 | "A" | 100 | 17 |
| 100 | 100 | "A" | 100 | 17 |
| | | | | |

58 rows of results

SELECT * FROM course WHERE exam = 100 exam homework grade project sid 100 99 "A" 100 1 100 100 "E" 99 15 100 100 "A" 100 17 "A" 100 100 100 17

4 rows of results

SELECT * FROM course WHERE grade = "A" exam homework grade project sid

100 99 "A" 100 1

| 100 | 100 | , , | 100 | Τ, |
|-----|-----|-----|-----|----|
| 100 | 100 | "A" | 100 | 17 |
| 66 | 100 | "A" | 100 | 5 |
| 100 | 100 | "A" | 100 | 17 |

SELECT * FROM course WHERE exam = 100 AND project = 100

| exam | homev | vork | grade | project sid |
|------|-------|------|-------|-------------|
| 100 | 99 | "A" | 100 | 1 |
| 100 | 100 | "A" | 100 | 17 |
| 100 | 100 | "A" | 100 | 17 |

3 rows of results

SELECT * FROM course WHERE exam = 100 OR exam = 99

| homev | vork | grade | project sid |
|-------|-------------------------|--------------------------------|--|
| 99 | "A" | 100 | 1 |
| 100 | "E" | 99 | 15 |
| 100 | "A" | 100 | 17 |
| 100 | "B" | 100 | 2 |
| 100 | "A" | 100 | 17 |
| | 99 100 100 100 | 99 "A" 100 "E" 100 "A" 100 "B" | 100 "E" 99 100 "A" 100 100 "B" 100 |

5 rows of results

SELECT * FROM course WHERE NOT exam = 0

| exam | homework | | grade | project sid |
|------|----------|-----|-------|-------------|
| 100 | 99 | "A" | 100 | 1 |
| 98 | 100 | "C" | 100 | 3 |
| 64 | 100 | "C" | 69 | 3 |

| 90 | 100 | "E" | 50 | 15 |
|-----|-----|-----|-----|----|
| 100 | 100 | "E" | 99 | 15 |
| 100 | 100 | "A" | 100 | 17 |
| 99 | 100 | "B" | 100 | 2 |
| 97 | 100 | "D" | 100 | 4 |
| 66 | 100 | "A" | 100 | 5 |
| 65 | 100 | "B" | 100 | 6 |
| 73 | 100 | "C" | 50 | 7 |
| 62 | 50 | "C" | 50 | 8 |
| 61 | 50 | "D" | 50 | 9 |
| 70 | 50 | "C" | 70 | 10 |
| 59 | 50 | "D" | 50 | 11 |
| 58 | 0 | "C" | 70 | 12 |
| 77 | 0 | "C" | 50 | 13 |
| 56 | 50 | "D" | 50 | 14 |
| 100 | 100 | "A" | 100 | 17 |
| | | | | |

SELECT * FROM course WHERE exam > 70 exam homework grade projectsid

| | | | Ū | | |
|-----|-----|-----|-----|----|--|
| 100 | 99 | "A" | 100 | 1 | |
| 98 | 100 | "C" | 100 | 3 | |
| 90 | 100 | "E" | 50 | 15 | |
| 100 | 100 | "E" | 99 | 15 | |

| 100 | 100 | "A" | 100 | 17 |
|-----|-----|-----|-----|----|
| 99 | 100 | "B" | 100 | 2 |
| 97 | 100 | "D" | 100 | 4 |
| 73 | 100 | "C" | 50 | 7 |
| 77 | 0 | "C" | 50 | 13 |
| 100 | 100 | "A" | 100 | 17 |

SELECT * FROM course WHERE exam = 100 OR homework = 100 AND project = 100 exam homework grade project sid

| | | | Ü | ' ' |
|-----|-----|-----|-----|-----|
| 100 | 99 | "A" | 100 | 1 |
| 98 | 100 | "C" | 100 | 3 |
| 100 | 100 | "E" | 99 | 15 |
| 100 | 100 | "A" | 100 | 17 |
| 99 | 100 | "B" | 100 | 2 |
| 97 | 100 | "D" | 100 | 4 |
| 66 | 100 | "A" | 100 | 5 |
| 65 | 100 | "B" | 100 | 6 |
| 100 | 100 | "A" | 100 | 17 |
| | | | | |

9 rows of results

SELECT * FROM course WHERE [exam = 100 OR homework = 100] AND project = 100 exam homework grade project sid

100 99 "A" 100 1 98 100 "C" 100 3

| 100 | 100 | "A" | 100 | 17 |
|-----|-----|-----|-----|----|
| 99 | 100 | "B" | 100 | 2 |
| 97 | 100 | "D" | 100 | 4 |
| 66 | 100 | "A" | 100 | 5 |
| 65 | 100 | "B" | 100 | 6 |
| 100 | 100 | "A" | 100 | 17 |

SELECT * FROM course WHERE exam + homework = 200

exam homework grade project sid

100 100 "E" 99 15 100 100 "A" 100 17 100 100 "A" 100 17

3 rows of results

SELECT * FROM course WHERE (exam * 30 + homework * 20 + project * 50) / 100 = 100

exam homework grade project sid

100 100 "A" 100 17 100 100 "A" 100 17

2 rows of results

SELECT * FROM course WHERE grade = "C" AND [exam > 70 OR project > 70] AND NOT (exam

* 30 + homework * 20 + project * 50) / 100 < 60

exam homework grade project sid

98 100 "C" 100 3 73 100 "C" 50 7

2 rows of results

CREATE TABLE course2 (sid INT, exam INT, grade STR20)
INSERT INTO course2 (sid, exam, grade) VALUES (1, 100, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (16, 25, "E")
INSERT INTO course2 (sid, exam, grade) VALUES (17, 0, "A")
SELECT * FROM course, course2

| 100 | 99 | "A" | 100 | 1 | 100 | "A" | 1 |
|-----|-----|-----|-----|----|-----|-----|----|
| 100 | 99 | "A" | 100 | 1 | 25 | "E" | 16 |
| 100 | 99 | "A" | 100 | 1 | 0 | "A" | 17 |
| 98 | 100 | "C" | 100 | 3 | 100 | "A" | 1 |
| 98 | 100 | "C" | 100 | 3 | 25 | "E" | 16 |
| 98 | 100 | "C" | 100 | 3 | 0 | "A" | 17 |
| 64 | 100 | "C" | 69 | 3 | 100 | "A" | 1 |
| 64 | 100 | "C" | 69 | 3 | 25 | "E" | 16 |
| 64 | 100 | "C" | 69 | 3 | 0 | "A" | 17 |
| 90 | 100 | "E" | 50 | 15 | 100 | "A" | 1 |
| 90 | 100 | "E" | 50 | 15 | 25 | "E" | 16 |
| 90 | 100 | "E" | 50 | 15 | 0 | "A" | 17 |
| 100 | 100 | "E" | 99 | 15 | 100 | "A" | 1 |
| 100 | 100 | "E" | 99 | 15 | 25 | "E" | 16 |
| 100 | 100 | "E" | 99 | 15 | 0 | "A" | 17 |
| 100 | 100 | "A" | 100 | 17 | 100 | "A" | 1 |
| 100 | 100 | "A" | 100 | 17 | 25 | "E" | 16 |
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |

| 99 | 100 | "B" | 100 | 2 | 100 | "A" | 1 |
|---|---|-----------------|----------------------------------|----------------------------|----------------------------------|-----------------|---------------------|
| 99 | 100 | "B" | 100 | 2 | 25 | "E" | 16 |
| 99 | 100 | "B" | 100 | 2 | 0 | "A" | 17 |
| 97 | 100 | "D" | 100 | 4 | 100 | "A" | 1 |
| 97 | 100 | "D" | 100 | 4 | 25 | "E" | 16 |
| 97 | 100 | "D" | 100 | 4 | 0 | "A" | 17 |
| 66 | 100 | "A" | 100 | 5 | 100 | "A" | 1 |
| 66 | 100 | "A" | 100 | 5 | 25 | "E" | 16 |
| 66 | 100 | "A" | 100 | 5 | 0 | "A" | 17 |
| 65 | 100 | "B" | 100 | 6 | 100 | "A" | 1 |
| 65 | 100 | "B" | 100 | 6 | 25 | "E" | 16 |
| 65 | 100 | "B" | 100 | 6 | 0 | "A" | 17 |
| | | | F0 | _ | 100 | "A" | 1 |
| 73 | 100 | "C" | 50 | 7 | 100 | A | |
| 7373 | 100 | "C" | 50 | 7 | 25 | "E" | 16 |
| | | | | | | | 16 17 |
| 73 | 100 | "C" | 50 | 7 | 25 | "E" | |
| 73 73 | 100 100 | "C" | 50 50 | 7 | 25 0 | "E" "A" | 17 |
| 73 73 62 | 100 100 50 | "C" "C" | 50 50 50 | 7 7 8 | 25 0 100 | "E" "A" "A" | 17 1 |
| 7373626262 | 1001005050 | "C" "C" "C" | 50 50 50 50 | 7 7 8 8 | 25 0 100 25 | "E" "A" "E" | 17 1 16 |
| 737362626262 | 100100505050 | "C" "C" "C" | 50 50 50 50 50 | 7 7 8 8 | 25 0 100 25 0 | "E" "A" "E" "A" | 17 1 16 17 |
| 737362626261 | 10010050505050 | "C" "C" "C" "C" | 50 50 50 50 50 50 | 7 7 8 8 8 9 | 25 0 100 25 0 100 | "E" "A" "E" "A" | 17 1 16 17 |

| 70 | 50 | "C" | 70 | 10 | 25 | "E" | 16 |
|----|----|-----|----|----|-----|-----|----|
| 70 | 50 | "C" | 70 | 10 | 0 | "A" | 17 |
| 59 | 50 | "D" | 50 | 11 | 100 | "A" | 1 |
| 59 | 50 | "D" | 50 | 11 | 25 | "E" | 16 |
| 59 | 50 | "D" | 50 | 11 | 0 | "A" | 17 |
| 58 | 0 | "C" | 70 | 12 | 100 | "A" | 1 |
| 58 | 0 | "C" | 70 | 12 | 25 | "E" | 16 |
| 58 | 0 | "C" | 70 | 12 | 0 | "A" | 17 |
| 77 | 0 | "C" | 50 | 13 | 100 | "A" | 1 |
| 77 | 0 | "C" | 50 | 13 | 25 | "E" | 16 |
| 77 | 0 | "C" | 50 | 13 | 0 | "A" | 17 |
| 56 | 50 | "D" | 50 | 14 | 100 | "A" | 1 |
| 56 | 50 | "D" | 50 | 14 | 25 | "E" | 16 |
| 56 | 50 | "D" | 50 | 14 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| | | | | | | | |

| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
|-----------------------|------------------|--------------------------|-----------------------|----------------------------|----------------------------------|-------------------|--------------------------------|
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| | | | | | | | |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" "E" | 0 | 16 16 | 100 25 | "A" "E" | 1 16 |
| | | | | | | | |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" "E" | 0 | 16 16 | 25 0 | "E" "A" | 16 17 |
| 0 0 0 | 0 0 0 | "E" "E" "E" | 0 0 0 | 16 16 16 | 25 0 100 | "E" "A" "A" | 16 17 1 |
| 0 0 0 0 | 0 0 0 | "E" "E" "E" "E" | 0 0 0 | 16 16 16 16 | 25 0 100 25 | "E" "A" "E" | 16 17 1 16 |
| 0 0 0 0 | 0 0 0 0 | "E" "E" "E" | 0 0 0 0 | 16 16 16 16 | 25 0 100 25 0 | "E" "A" "E" "A" | 16 17 1 16 17 |
| 0 0 0 0 0 | 0 0 0 0 | "E" "E" "E" "E" | 0 0 0 0 0 | 16 16 16 16 16 | 25 0 100 25 0 100 | "E" "A" "E" "A" | 16 17 1 16 17 1 |

| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
|---|---|-----|---|----|-----|-----|----|
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |

| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
|---|---|-----|---|----|-----|-----|----|
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| | | | | | | | |

| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
|-----------------------|------------------|--------------------------|-----------------------|----------------------------|----------------------------------|-------------------|--------------------------------|
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| | | | | | | | |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" "E" | 0 | 16 16 | 100 25 | "A" "E" | 1 16 |
| | | | | | | | |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" "E" | 0 | 16 16 | 25 0 | "E" "A" | 16 17 |
| 0 0 0 | 0 0 0 | "E" "E" "E" | 0 0 0 | 16 16 16 | 25 0 100 | "E" "A" "A" | 16 17 1 |
| 0 0 0 0 | 0 0 0 | "E" "E" "E" "E" | 0 0 0 | 16 16 16 16 | 25 0 100 25 | "E" "A" "E" | 16 17 1 16 |
| 0 0 0 0 | 0 0 0 0 | "E" "E" "E" | 0 0 0 0 | 16 16 16 16 | 25 0 100 25 0 | "E" "A" "E" "A" | 16 17 1 16 17 |
| 0 0 0 0 0 | 0 0 0 0 | "E" "E" "E" "E" | 0 0 0 0 0 | 16 16 16 16 16 | 25 0 100 25 0 100 | "E" "A" "E" "A" | 16 17 1 16 17 1 |

| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
|-----|-----|-----|-----|----|-----|-----|----|
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 0 | 0 | "E" | 0 | 16 | 100 | "A" | 1 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 0 | "A" | 17 |
| 100 | 100 | "A" | 100 | 17 | 100 | "A" | 1 |

| 100 | 100 | "A" | 100 | 17 | 25 | "E" | 16 |
|-----|-----|-----|-----|----|----|-----|----|
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |

```
INSERT INTO course2 (sid, exam, grade) VALUES (2, 99, "B")
e= java.lang.ArithmeticException: / by zero
INSERT INTO course2 (sid, exam, grade) VALUES (3, 98, "C")
INSERT INTO course2 (sid, exam, grade) VALUES (4, 97, "D")
INSERT INTO course2 (sid, exam, grade) VALUES (5, 66, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (6, 65, "B")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
```

SELECT course.sid, course.grade, course2.grade FROM course, course2 WHERE course.sid = course2.sid

- 6 "B" "B"
- 16 "E" "E"

| 16 | "E" | "E" |
|----|-----|-----|
| 16 | "E" | "E" |
| 17 | "A" | "A" |

SELECT DISTINCT course.grade, course2.grade FROM course, course2 WHERE course.sid = course2.sid

"A" "A"

```
"C"
     "C"
"D"
     "D"
"B"
     "B"
```

SELECT * FROM course, course2 WHERE course.sid = course2.sid ORDER BY course.exam

| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
|---|---|-----|---|----|----|-----|----|
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |

| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
|-----|-----|-----|-----|----|-----|-----|----|
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 0 | 0 | "E" | 0 | 16 | 25 | "E" | 16 |
| 64 | 100 | "C" | 69 | 3 | 98 | "C" | 3 |
| 65 | 100 | "B" | 100 | 6 | 65 | "B" | 6 |
| 66 | 100 | "A" | 100 | 5 | 66 | "A" | 5 |
| 97 | 100 | "D" | 100 | 4 | 97 | "D" | 4 |
| 98 | 100 | "C" | 100 | 3 | 98 | "C" | 3 |
| 100 | 99 | "A" | 100 | 1 | 100 | "A" | 1 |
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |
| | | | | | | | |

47 rows of results

SELECT * FROM course, course2 WHERE course.sid = course2.sid AND course.exam = 100 AND course2.exam = 100

100 99 "A" 100 1 100 "A" 1

1 rows of results

SELECT * FROM course, course2 WHERE course.sid = course2.sid AND [course.exam = 100 OR course2.exam = 100]

100 99 "A" 100 1 100 "A" 1

1 rows of results

SELECT * FROM course, course2 WHERE course.sid = course2.sid AND course.exam > course2.exam

100 100 "A" 100 17 0 "A" 17 "A" "A" 100 100 100 17 0 17

2 rows of results

SELECT * FROM course, course2 WHERE course.sid = course2.sid AND course.exam > course2.exam AND course.homework = 100

| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |
|-----|-----|-----|-----|----|---|-----|----|
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |

SELECT * FROM course, course2 WHERE course.sid = course2.sid AND [course.exam > course2.exam OR course.homework = 100]

| 98 | 100 | "C" | 100 | 3 | 98 | "C" | 3 |
|-----|-----|-----|-----|----|----|-----|----|
| 64 | 100 | "C" | 69 | 3 | 98 | "C" | 3 |
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |
| 97 | 100 | "D" | 100 | 4 | 97 | "D" | 4 |
| 66 | 100 | "A" | 100 | 5 | 66 | "A" | 5 |
| 65 | 100 | "B" | 100 | 6 | 65 | "B" | 6 |
| 100 | 100 | "A" | 100 | 17 | 0 | "A" | 17 |

7 rows of results

SELECT DISTINCT course.grade, course2.grade FROM course, course2 WHERE course.sid = course2.sid AND [course.exam > course2.exam OR course.grade = "A" AND course2.grade = "A"] ORDER BY course.exam

"A" "A"

1 rows of results

DROP TABLE course DROP TABLE course2

CREATE TABLE t1 (c INT)

CREATE TABLE t2 (c INT)

CREATE TABLE t3 (c INT)

CREATE TABLE t4 (c INT)

CREATE TABLE t5 (c INT)

| CRE | ΔTF | TABL | Ft6 | (c I | NT) |
|-----|-----------|-------------|-----|-------|-----|
| | \neg ı∟ | | | l C I | 111 |

- INSERT INTO t1 (c) VALUES (0)
- INSERT INTO t1 (c) VALUES (1)
- INSERT INTO t1 (c) VALUES (2)
- INSERT INTO t1 (c) VALUES (3)
- INSERT INTO t1 (c) VALUES (4)
- INSERT INTO t2 (c) VALUES (0)
- INSERT INTO t2 (c) VALUES (1)
- INSERT INTO t2 (c) VALUES (2)
- INSERT INTO t2 (c) VALUES (3)
- INSERT INTO t3 (c) VALUES (0)
- INSERT INTO t3 (c) VALUES (1)
- INSERT INTO t3 (c) VALUES (2)
- INSERT INTO t3 (c) VALUES (3)
- INSERT INTO t4 (c) VALUES (0)
- INSERT INTO t4 (c) VALUES (1)
- INSERT INTO t5 (c) VALUES (0)
- INSERT INTO 15 (0) VALUES (0
- INSERT INTO t5 (c) VALUES (0) INSERT INTO t6 (c) VALUES (0)
- SELECT * FROM t1, t2, t3, t4, t5, t6

| 0 | 0 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 0 | 1 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 | 0 |
| 0 | 0 | 1 | 1 | 0 | 0 |
| 0 | 0 | 2 | 0 | 0 | 0 |
| 0 | 0 | 2 | 0 | 0 | 0 |
| | | | | | |

0

0

2

1

0

0

| 0 | 2 | 1 | 0 | 0 |
|---|--|---|---|---|
| 0 | 3 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 |
| 0 | 3 | 1 | 0 | 0 |
| 0 | 3 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 |
| 1 | 2 | 0 | 0 | 0 |
| 1 | 2 | 0 | 0 | 0 |
| 1 | 2 | 1 | 0 | 0 |
| 1 | 2 | 1 | 0 | 0 |
| 1 | 3 | 0 | 0 | 0 |
| 1 | 3 | 0 | 0 | 0 |
| 1 | 3 | 1 | 0 | 0 |
| 1 | 3 | 1 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 |
| | <pre>0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</pre> | 0 3 0 3 0 3 0 3 1 0 1 0 1 0 1 0 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 2 1 2 1 2 | 0 3 0 0 3 0 0 3 1 1 0 0 1 0 0 1 0 1 1 1 0 1 1 0 1 1 1 1 1 1 1 2 0 1 2 1 1 2 1 1 3 0 1 3 0 1 3 1 1 3 1 1 3 1 | 0 3 0 0 0 3 1 0 0 3 1 0 1 0 0 0 1 0 0 0 1 0 1 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 1 0 1 1 1 0 1 1 1 0 1 2 0 0 1 2 1 0 1 2 1 0 1 3 0 0 1 3 0 0 1 3 1 0 1 3 1 0 |

| 0 | 2 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 0 | 2 | 0 | 1 | 0 | 0 |
| 0 | 2 | 0 | 1 | 0 | 0 |
| 0 | 2 | 1 | 0 | 0 | 0 |
| 0 | 2 | 1 | 0 | 0 | 0 |
| 0 | 2 | 1 | 1 | 0 | 0 |
| 0 | 2 | 1 | 1 | 0 | 0 |
| 0 | 2 | 2 | 0 | 0 | 0 |
| 0 | 2 | 2 | 0 | 0 | 0 |
| 0 | 2 | 2 | 1 | 0 | 0 |
| 0 | 2 | 2 | 1 | 0 | 0 |
| 0 | 2 | 3 | 0 | 0 | 0 |
| 0 | 2 | 3 | 0 | 0 | 0 |
| 0 | 2 | 3 | 1 | 0 | 0 |
| 0 | 2 | 3 | 1 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 0 | 0 | 0 |
| 0 | 3 | 0 | 1 | 0 | 0 |
| 0 | 3 | 0 | 1 | 0 | 0 |
| 0 | 3 | 1 | 0 | 0 | 0 |
| 0 | 3 | 1 | 0 | 0 | 0 |
| 0 | 3 | 1 | 1 | 0 | 0 |

| 0 | 3 | 1 | 1 | 0 | 0 |
|---|---|---|---|---|---|
| 0 | 3 | 2 | 0 | 0 | 0 |
| 0 | 3 | 2 | 0 | 0 | 0 |
| 0 | 3 | 2 | 1 | 0 | 0 |
| 0 | 3 | 2 | 1 | 0 | 0 |
| 0 | 3 | 3 | 0 | 0 | 0 |
| 0 | 3 | 3 | 0 | 0 | 0 |
| 0 | 3 | 3 | 1 | 0 | 0 |
| 0 | 3 | 3 | 1 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 0 | 1 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 |
| 1 | 0 | 1 | 1 | 0 | 0 |
| 1 | 0 | 2 | 0 | 0 | 0 |
| 1 | 0 | 2 | 0 | 0 | 0 |
| 1 | 0 | 2 | 1 | 0 | 0 |
| 1 | 0 | 2 | 1 | 0 | 0 |
| 1 | 0 | 3 | 0 | 0 | 0 |
| | | | | | |

| 1 | 0 | 3 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 1 | 0 | 3 | 1 | 0 | 0 |
| 1 | 0 | 3 | 1 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 0 | 1 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 1 | 1 | 0 | 0 |
| 1 | 1 | 2 | 0 | 0 | 0 |
| 1 | 1 | 2 | 0 | 0 | 0 |
| 1 | 1 | 2 | 1 | 0 | 0 |
| 1 | 1 | 2 | 1 | 0 | 0 |
| 1 | 1 | 3 | 0 | 0 | 0 |
| 1 | 1 | 3 | 0 | 0 | 0 |
| 1 | 1 | 3 | 1 | 0 | 0 |
| 1 | 1 | 3 | 1 | 0 | 0 |
| 1 | 2 | 0 | 0 | 0 | 0 |
| 1 | 2 | 0 | 0 | 0 | 0 |
| 1 | 2 | 0 | 1 | 0 | 0 |
| | | | | | |

| 1 | 2 | 0 | 1 | 0 | 0 |
|---|---|---|---|---|---|
| 1 | 2 | 1 | 0 | 0 | 0 |
| 1 | 2 | 1 | 0 | 0 | 0 |
| 1 | 2 | 1 | 1 | 0 | 0 |
| 1 | 2 | 1 | 1 | 0 | 0 |
| 1 | 2 | 2 | 0 | 0 | 0 |
| 1 | 2 | 2 | 0 | 0 | 0 |
| 1 | 2 | 2 | 1 | 0 | 0 |
| 1 | 2 | 2 | 1 | 0 | 0 |
| 1 | 2 | 3 | 0 | 0 | 0 |
| 1 | 2 | 3 | 0 | 0 | 0 |
| 1 | 2 | 3 | 1 | 0 | 0 |
| 1 | 2 | 3 | 1 | 0 | 0 |
| 1 | 3 | 0 | 0 | 0 | 0 |
| 1 | 3 | 0 | 0 | 0 | 0 |
| 1 | 3 | 0 | 1 | 0 | 0 |
| 1 | 3 | 0 | 1 | 0 | 0 |
| 1 | 3 | 1 | 0 | 0 | 0 |
| 1 | 3 | 1 | 0 | 0 | 0 |
| 1 | 3 | 1 | 1 | 0 | 0 |
| 1 | 3 | 1 | 1 | 0 | 0 |
| 1 | 3 | 2 | 0 | 0 | 0 |
| | | | | | |

| 1 | 3 | 2 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 1 | 3 | 2 | 1 | 0 | 0 |
| 1 | 3 | 2 | 1 | 0 | 0 |
| 1 | 3 | 3 | 0 | 0 | 0 |
| 1 | 3 | 3 | 0 | 0 | 0 |
| 1 | 3 | 3 | 1 | 0 | 0 |
| 1 | 3 | 3 | 1 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 1 | 0 | 0 |
| 2 | 0 | 0 | 1 | 0 | 0 |
| 2 | 0 | 1 | 0 | 0 | 0 |
| 2 | 0 | 1 | 0 | 0 | 0 |
| 2 | 0 | 1 | 1 | 0 | 0 |
| 2 | 0 | 1 | 1 | 0 | 0 |
| 2 | 0 | 2 | 0 | 0 | 0 |
| 2 | 0 | 2 | 0 | 0 | 0 |
| 2 | 0 | 2 | 1 | 0 | 0 |
| 2 | 0 | 2 | 1 | 0 | 0 |
| 2 | 0 | 3 | 0 | 0 | 0 |
| 2 | 0 | 3 | 0 | 0 | 0 |
| 2 | 0 | 3 | 1 | 0 | 0 |
| | | | | | |

| 2 | 0 | 3 | 1 | 0 | 0 |
|---|---|---|---|---|---|
| 2 | 1 | 0 | 0 | 0 | 0 |
| 2 | 1 | 0 | 0 | 0 | 0 |
| 2 | 1 | 0 | 1 | 0 | 0 |
| 2 | 1 | 0 | 1 | 0 | 0 |
| 2 | 1 | 1 | 0 | 0 | 0 |
| 2 | 1 | 1 | 0 | 0 | 0 |
| 2 | 1 | 1 | 1 | 0 | 0 |
| 2 | 1 | 1 | 1 | 0 | 0 |
| 2 | 1 | 2 | 0 | 0 | 0 |
| 2 | 1 | 2 | 0 | 0 | 0 |
| 2 | 1 | 2 | 1 | 0 | 0 |
| 2 | 1 | 2 | 1 | 0 | 0 |
| 2 | 1 | 3 | 0 | 0 | 0 |
| 2 | 1 | 3 | 0 | 0 | 0 |
| 2 | 1 | 3 | 1 | 0 | 0 |
| 2 | 1 | 3 | 1 | 0 | 0 |
| 2 | 2 | 0 | 0 | 0 | 0 |
| 2 | 2 | 0 | 0 | 0 | 0 |
| 2 | 2 | 0 | 1 | 0 | 0 |
| 2 | 2 | 0 | 1 | 0 | 0 |
| | | | | | |

2 2 1 0 0 0

| 2 | 2 | 1 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 2 | 2 | 1 | 1 | 0 | 0 |
| 2 | 2 | 1 | 1 | 0 | 0 |
| 2 | 2 | 2 | 0 | 0 | 0 |
| 2 | 2 | 2 | 0 | 0 | 0 |
| 2 | 2 | 2 | 1 | 0 | 0 |
| 2 | 2 | 2 | 1 | 0 | 0 |
| 2 | 2 | 3 | 0 | 0 | 0 |
| 2 | 2 | 3 | 0 | 0 | 0 |
| 2 | 2 | 3 | 1 | 0 | 0 |
| 2 | 2 | 3 | 1 | 0 | 0 |
| 2 | 3 | 0 | 0 | 0 | 0 |
| 2 | 3 | 0 | 0 | 0 | 0 |
| 2 | 3 | 0 | 1 | 0 | 0 |
| 2 | 3 | 0 | 1 | 0 | 0 |
| 2 | 3 | 1 | 0 | 0 | 0 |
| 2 | 3 | 1 | 0 | 0 | 0 |
| 2 | 3 | 1 | 1 | 0 | 0 |
| 2 | 3 | 1 | 1 | 0 | 0 |
| 2 | 3 | 2 | 0 | 0 | 0 |
| 2 | 3 | 2 | 0 | 0 | 0 |
| | | | | | |

2 3 2 1 0 0

| 2 | 3 | 2 | 1 | 0 | 0 |
|---|---|---|---|---|---|
| 2 | 3 | 3 | 0 | 0 | 0 |
| 2 | 3 | 3 | 0 | 0 | 0 |
| 2 | 3 | 3 | 1 | 0 | 0 |
| 2 | 3 | 3 | 1 | 0 | 0 |
| 3 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 1 | 0 | 0 |
| 3 | 0 | 0 | 1 | 0 | 0 |
| 3 | 0 | 1 | 0 | 0 | 0 |
| 3 | 0 | 1 | 0 | 0 | 0 |
| 3 | 0 | 1 | 1 | 0 | 0 |
| 3 | 0 | 1 | 1 | 0 | 0 |
| 3 | 0 | 2 | 0 | 0 | 0 |
| 3 | 0 | 2 | 0 | 0 | 0 |
| 3 | 0 | 2 | 1 | 0 | 0 |
| 3 | 0 | 2 | 1 | 0 | 0 |
| 3 | 0 | 3 | 0 | 0 | 0 |
| 3 | 0 | 3 | 0 | 0 | 0 |
| 3 | 0 | 3 | 1 | 0 | 0 |
| 3 | 0 | 3 | 1 | 0 | 0 |
| 3 | 1 | 0 | 0 | 0 | 0 |

| 3 | 1 | 0 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 3 | 1 | 0 | 1 | 0 | 0 |
| 3 | 1 | 0 | 1 | 0 | 0 |
| 3 | 1 | 1 | 0 | 0 | 0 |
| 3 | 1 | 1 | 0 | 0 | 0 |
| 3 | 1 | 1 | 1 | 0 | 0 |
| 3 | 1 | 1 | 1 | 0 | 0 |
| 3 | 1 | 2 | 0 | 0 | 0 |
| 3 | 1 | 2 | 0 | 0 | 0 |
| 3 | 1 | 2 | 1 | 0 | 0 |
| 3 | 1 | 2 | 1 | 0 | 0 |
| 3 | 1 | 3 | 0 | 0 | 0 |
| 3 | 1 | 3 | 0 | 0 | 0 |
| 3 | 1 | 3 | 1 | 0 | 0 |
| 3 | 1 | 3 | 1 | 0 | 0 |
| 3 | 2 | 0 | 0 | 0 | 0 |
| 3 | 2 | 0 | 0 | 0 | 0 |
| 3 | 2 | 0 | 1 | 0 | 0 |
| 3 | 2 | 0 | 1 | 0 | 0 |
| 3 | 2 | 1 | 0 | 0 | 0 |
| 3 | 2 | 1 | 0 | 0 | 0 |
| 3 | 2 | 1 | 1 | 0 | 0 |
| | | | | | |

| 3 | 2 | 1 | 1 | 0 | 0 |
|---|---|---|---|---|---|
| 3 | 2 | 2 | 0 | 0 | 0 |
| 3 | 2 | 2 | 0 | 0 | 0 |
| 3 | 2 | 2 | 1 | 0 | 0 |
| 3 | 2 | 2 | 1 | 0 | 0 |
| 3 | 2 | 3 | 0 | 0 | 0 |
| 3 | 2 | 3 | 0 | 0 | 0 |
| 3 | 2 | 3 | 1 | 0 | 0 |
| 3 | 2 | 3 | 1 | 0 | 0 |
| 3 | 3 | 0 | 0 | 0 | 0 |
| 3 | 3 | 0 | 0 | 0 | 0 |
| 3 | 3 | 0 | 1 | 0 | 0 |
| 3 | 3 | 0 | 1 | 0 | 0 |
| 3 | 3 | 1 | 0 | 0 | 0 |
| 3 | 3 | 1 | 0 | 0 | 0 |
| 3 | 3 | 1 | 1 | 0 | 0 |
| 3 | 3 | 1 | 1 | 0 | 0 |
| 3 | 3 | 2 | 0 | 0 | 0 |
| 3 | 3 | 2 | 0 | 0 | 0 |
| 3 | 3 | 2 | 1 | 0 | 0 |
| 3 | 3 | 2 | 1 | 0 | 0 |
| 3 | 3 | 3 | 0 | 0 | 0 |
| | | | | | |

| 3 | 3 | 3 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 3 | 3 | 3 | 1 | 0 | 0 |
| 3 | 3 | 3 | 1 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 1 | 0 | 0 |
| 4 | 0 | 0 | 1 | 0 | 0 |
| 4 | 0 | 1 | 0 | 0 | 0 |
| 4 | 0 | 1 | 0 | 0 | 0 |
| 4 | 0 | 1 | 1 | 0 | 0 |
| 4 | 0 | 1 | 1 | 0 | 0 |
| 4 | 0 | 2 | 0 | 0 | 0 |
| 4 | 0 | 2 | 0 | 0 | 0 |
| 4 | 0 | 2 | 1 | 0 | 0 |
| 4 | 0 | 2 | 1 | 0 | 0 |
| 4 | 0 | 3 | 0 | 0 | 0 |
| 4 | 0 | 3 | 0 | 0 | 0 |
| 4 | 0 | 3 | 1 | 0 | 0 |
| 4 | 0 | 3 | 1 | 0 | 0 |
| 4 | 1 | 0 | 0 | 0 | 0 |
| 4 | 1 | 0 | 0 | 0 | 0 |
| 4 | 1 | 0 | 1 | 0 | 0 |

| 4 | 1 | 0 | 1 | 0 | 0 |
|---|---|---|---|---|---|
| 4 | 1 | 1 | 0 | 0 | 0 |
| 4 | 1 | 1 | 0 | 0 | 0 |
| 4 | 1 | 1 | 1 | 0 | 0 |
| 4 | 1 | 1 | 1 | 0 | 0 |
| 4 | 1 | 2 | 0 | 0 | 0 |
| 4 | 1 | 2 | 0 | 0 | 0 |
| 4 | 1 | 2 | 1 | 0 | 0 |
| 4 | 1 | 2 | 1 | 0 | 0 |
| 4 | 1 | 3 | 0 | 0 | 0 |
| 4 | 1 | 3 | 0 | 0 | 0 |
| 4 | 1 | 3 | 1 | 0 | 0 |
| 4 | 1 | 3 | 1 | 0 | 0 |
| 4 | 2 | 0 | 0 | 0 | 0 |
| 4 | 2 | 0 | 0 | 0 | 0 |
| 4 | 2 | 0 | 1 | 0 | 0 |
| 4 | 2 | 0 | 1 | 0 | 0 |
| 4 | 2 | 1 | 0 | 0 | 0 |
| 4 | 2 | 1 | 0 | 0 | 0 |
| 4 | 2 | 1 | 1 | 0 | 0 |
| 4 | 2 | 1 | 1 | 0 | 0 |
| 4 | 2 | 2 | 0 | 0 | 0 |
| | | | | | |

| 4 | 2 | 2 | 0 | 0 | 0 |
|---|---|---|---|---|---|
| 4 | 2 | 2 | 1 | 0 | 0 |
| 4 | 2 | 2 | 1 | 0 | 0 |
| 4 | 2 | 3 | 0 | 0 | 0 |
| 4 | 2 | 3 | 0 | 0 | 0 |
| 4 | 2 | 3 | 1 | 0 | 0 |
| 4 | 2 | 3 | 1 | 0 | 0 |
| 4 | 3 | 0 | 0 | 0 | 0 |
| 4 | 3 | 0 | 0 | 0 | 0 |
| 4 | 3 | 0 | 1 | 0 | 0 |
| 4 | 3 | 0 | 1 | 0 | 0 |
| 4 | 3 | 1 | 0 | 0 | 0 |
| 4 | 3 | 1 | 0 | 0 | 0 |
| 4 | 3 | 1 | 1 | 0 | 0 |
| 4 | 3 | 1 | 1 | 0 | 0 |
| 4 | 3 | 2 | 0 | 0 | 0 |
| 4 | 3 | 2 | 0 | 0 | 0 |
| 4 | 3 | 2 | 1 | 0 | 0 |
| 4 | 3 | 2 | 1 | 0 | 0 |
| 4 | 3 | 3 | 0 | 0 | 0 |
| 4 | 3 | 3 | 0 | 0 | 0 |
| 4 | 3 | 3 | 1 | 0 | 0 |
| | | | | | |

4 3 3 1 0 0

320 rows of results

DROP TABLE t1

DROP TABLE t2

DROP TABLE t3

DROP TABLE t4

DROP TABLE t5

DROP TABLE t6

Process finished with exit code 0