

Exercise about Joins

Suppose we have two tables with content as follows:

```
select * from One
```

```
+-----+-----+
```

```
| a      | b      |
```

```
+-----+-----+
```

```
|      1 |      2 |
```

```
|      6 |     12 |
```

```
| NULL  |    100 |
```

```
|     20 |   NULL |
```

```
+-----+-----+
```

```
select * from Two;
```

```
+-----+-----+
```

```
| b      | c      |
```

```
+-----+-----+
```

```
|      2 |      3 |
```

```
|    100 |    101 |
```

```
|     20 |     21 |
```

```
|      2 |      4 |
```

```
|      2 |      5 |
```

```
+-----+-----+
```

- For the following results, which one comes from natural join?

Which one comes from inner join? Why?

+-----+-----+-----+			
b	a	c	
+-----+-----+-----+			
2	1	3	
100	NULL	101	
2	1	4	
2	1	5	
+-----+-----+-----+			

+-----+-----+-----+-----+				
a	b	b	c	
+-----+-----+-----+-----+				
1	2	2	3	
NULL	100	100	101	
1	2	2	4	
1	2	2	5	
+-----+-----+-----+-----+				

- What query could produce this result?

+-----+-----+-----+			
b	c	a	
+-----+-----+-----+			
2	3	1	
2	4	1	
2	5	1	
100	101	NULL	

	20		21		NULL	
--	----	--	----	--	------	--

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

- What query could produce this result?

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

	b		a		c	
--	---	--	---	--	---	--

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

	2		1		3	
--	---	--	---	--	---	--

	100		NULL		101	
--	-----	--	------	--	-----	--

	2		1		4	
--	---	--	---	--	---	--

	2		1		5	
--	---	--	---	--	---	--

	12		6		NULL	
--	----	--	---	--	------	--

	NULL		20		NULL	
--	------	--	----	--	------	--

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

- What query could produce this result?

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

	a		b		b		c	
--	---	--	---	--	---	--	---	--

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

	1		2		2		3	
--	---	--	---	--	---	--	---	--

	NULL		100		100		101	
--	------	--	-----	--	-----	--	-----	--

	1		2		2		4	
--	---	--	---	--	---	--	---	--

	1		2		2		5	
--	---	--	---	--	---	--	---	--

	6		12		NULL		NULL	
--	---	--	----	--	------	--	------	--

	20		NULL		NULL		NULL	
--	----	--	------	--	------	--	------	--

+	-	-	-	+	-	-	-	+
---	---	---	---	---	---	---	---	---

- What query could produce this result?

+-----+-----+-----+-----+				
a	b	b	c	
+-----+-----+-----+-----+				
1	2	2	3	
1	2	2	4	
1	2	2	5	
NULL	100	100	101	
NULL	NULL	20	21	
+-----+-----+-----+-----+				