

# Zwei Tabellen mit Fremdschlüsselbeziehung

```
CREATE TABLE R (  
  ID int PRIMARY KEY,  
  a int  
)
```

```
CREATE TABLE S (  
  ID int PRIMARY KEY,  
  FKaufR int REFERENCES R  
)
```

# Beispieldaten erzeugen...

INSERT INTO

R

VALUES

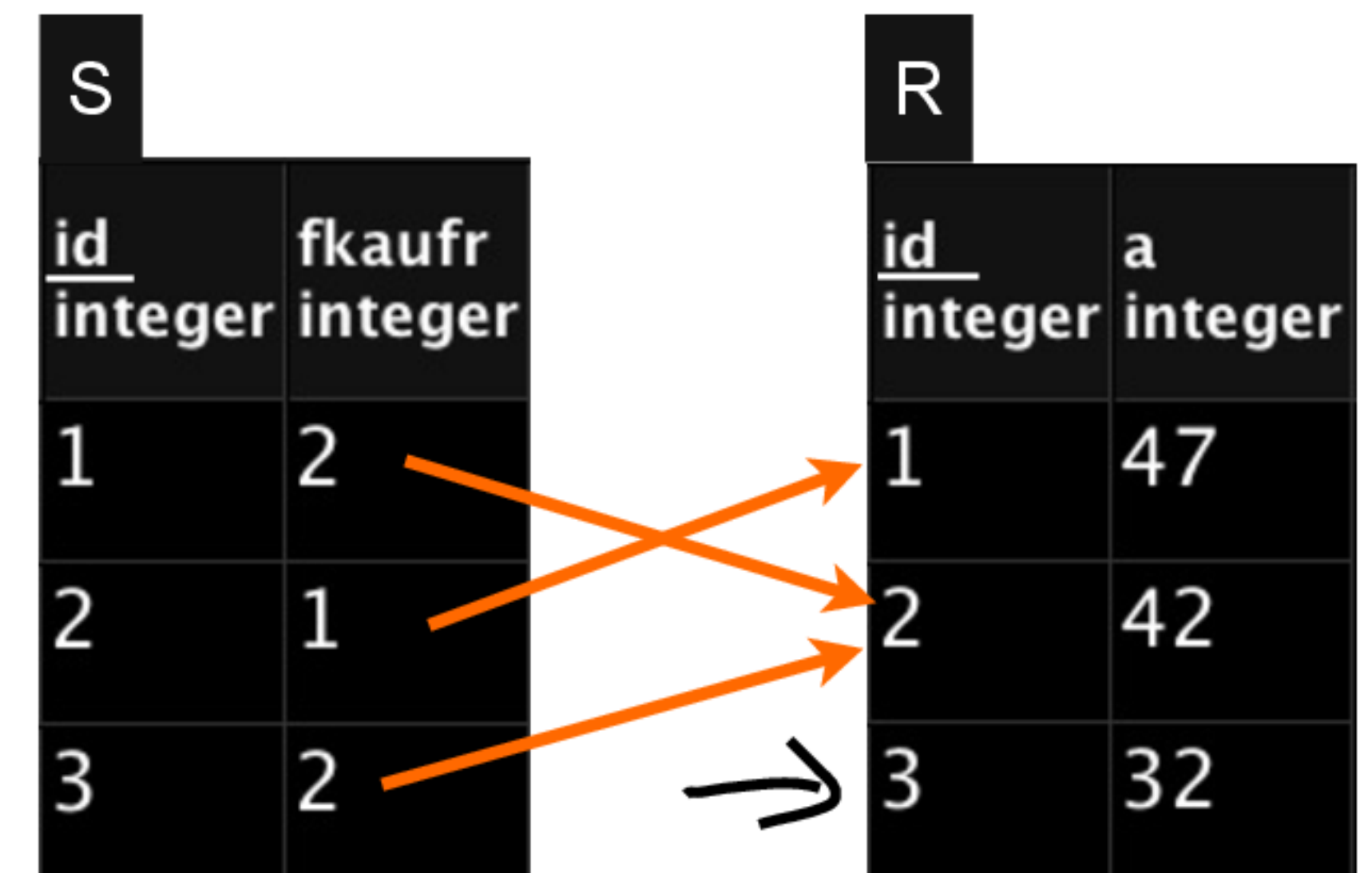
(1, 47), (2, 42), (3, 32)

INSERT INTO

S

VALUES

(1, 2), (2, 1), (3, 2)



# Daten aus R löschen...

**DELETE FROM** R

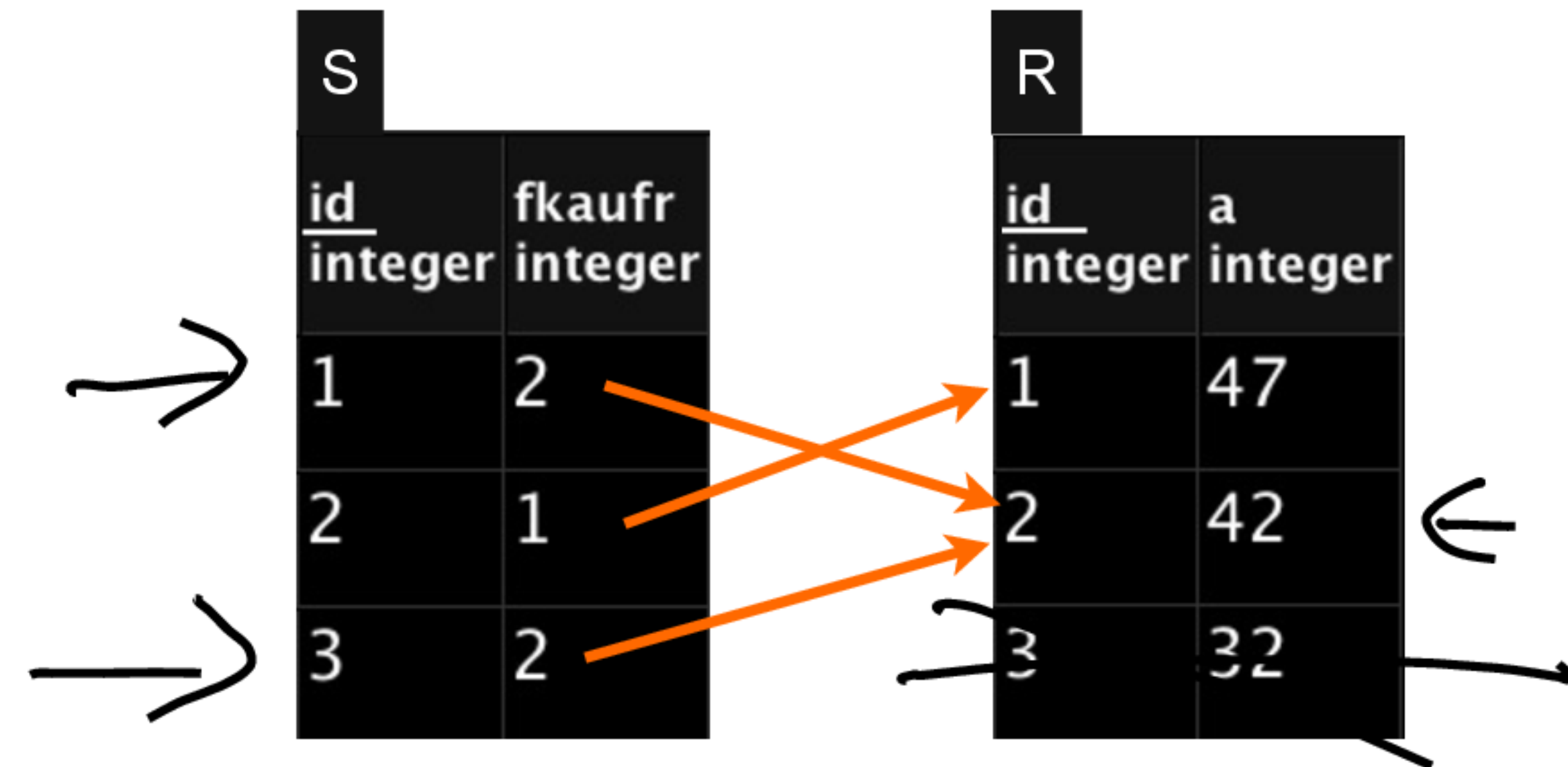
**WHERE** ID=2

ERROR: update or delete on table "r" violates foreign key constraint "s\_fkaufr\_fkey" on table "s"  
DETAIL: Key (id)=(2) is still referenced from table "s".

**DELETE FROM** R

**WHERE** ID=3

Query returned successfully: one row affected, 19 ms execution time.



Default

```
CREATE TABLE R (  
    ID int PRIMARY KEY,  
    a int  
)  
  
CREATE TABLE S (  
    ID int PRIMARY KEY,  
    FKaufR int REFERENCES R  
)
```



NO ACTION

**CREATE TABLE R (**

ID

int **PRIMARY KEY,**

a

int

)

**CREATE TABLE S (**

ID

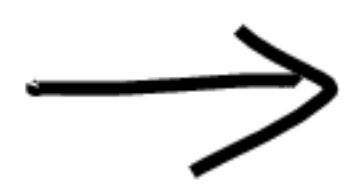
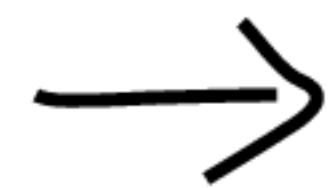
int **PRIMARY KEY,**

FKaufR

int **REFERENCES R**


**ON DELETE NO ACTION**

**ON UPDATE NO ACTION**



# SET NULL

```
CREATE TABLE R (  
    ID int PRIMARY KEY,  
    a int  
)  
  
CREATE TABLE S (  
    ID int PRIMARY KEY,  
    FKaufR int REFERENCES R  
    ON DELETE SET NULL  
)
```



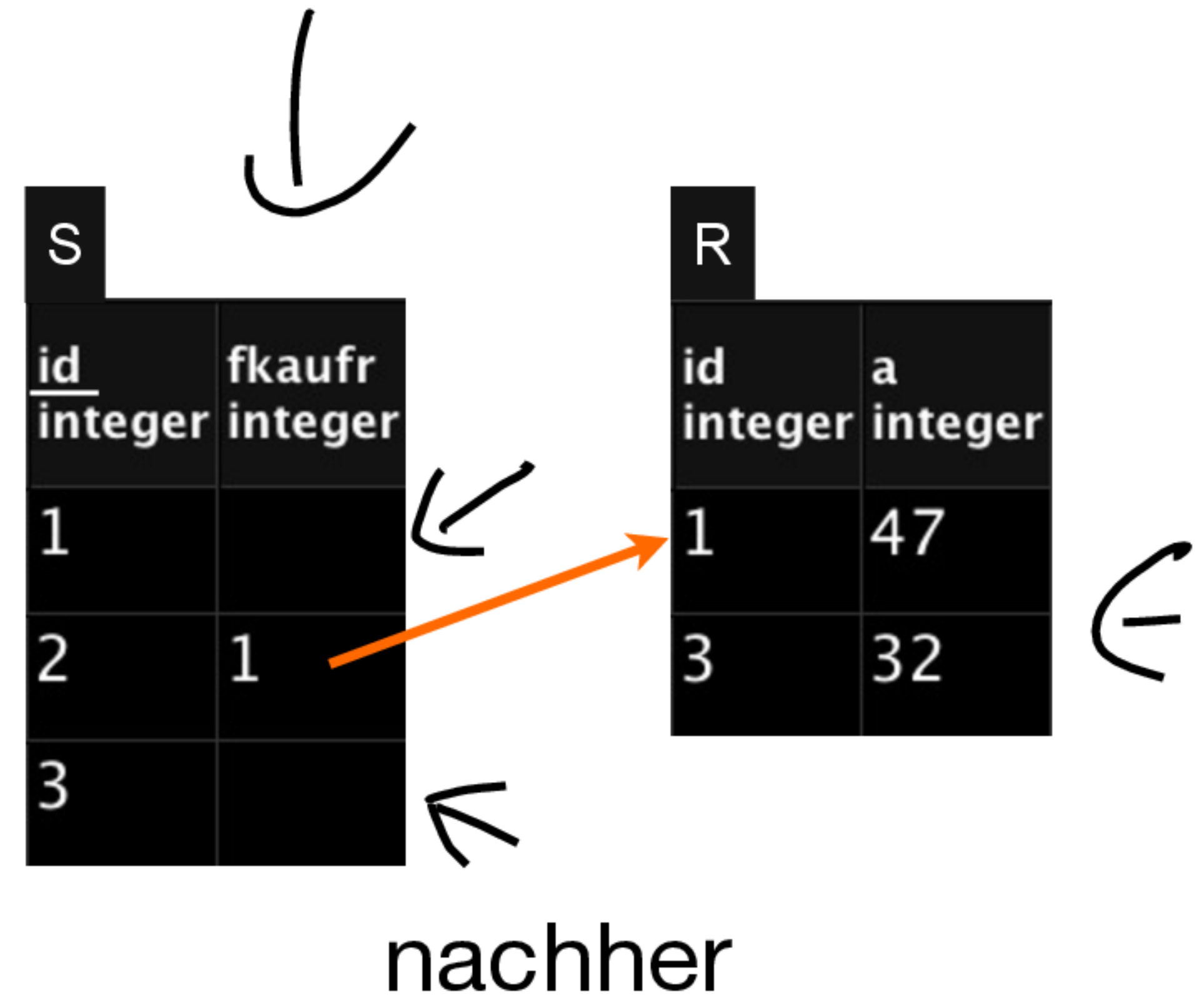
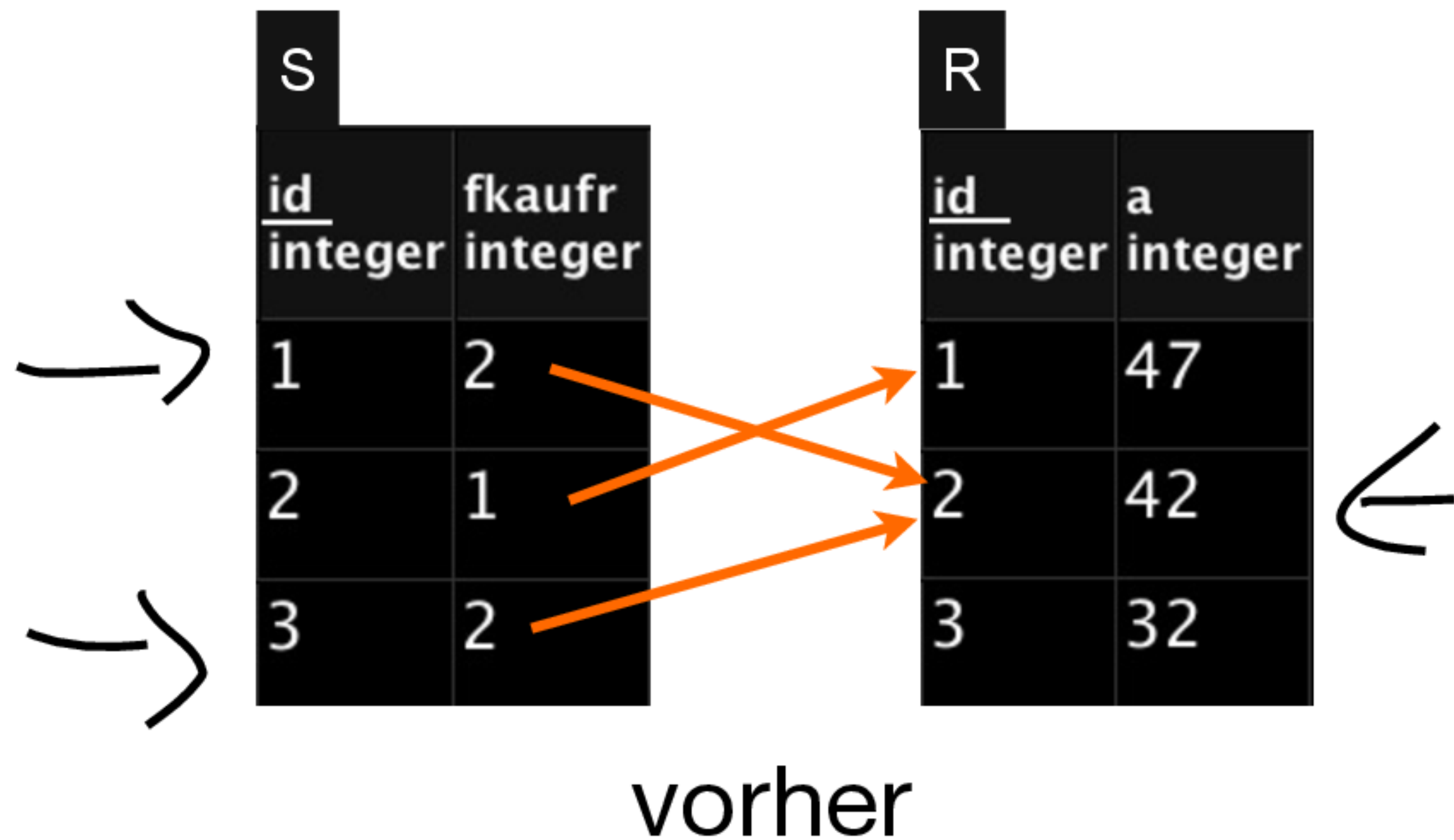


# SET NULL: Daten aus R löschen...

**DELETE FROM** R

**WHERE** ID=2

Query returned successfully: one row affected, 20 ms execution time.



# CASCADE

```
CREATE TABLE R (  
    ID int PRIMARY KEY,  
    a int  
)  
  
CREATE TABLE S (  
    ID int PRIMARY KEY,  
    FKaufR int REFERENCES R  
    ON DELETE CASCADE  
)
```



# CASCADE: Daten aus R löschen...

**DELETE FROM**

**WHERE**

**R**

ID=2

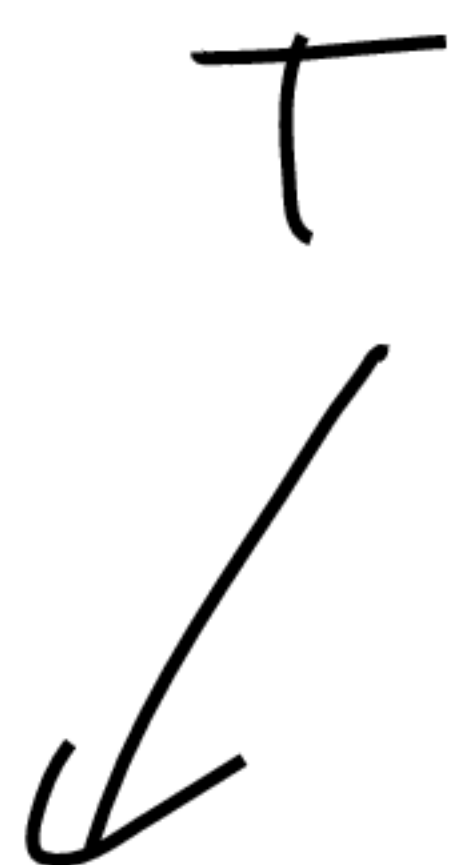
Query returned successfully: one row affected, 20 ms execution time.

S		R	
<u>id</u> integer	fkaufr integer	<u>id</u> integer	a integer
1	2	1	47
2	1	2	42
3	2	3	32

vorher

S		R	
<u>id</u> integer	fkaufr integer	<u>id</u> integer	a integer
2	1	1	47
		3	32

nachher



# SET DEFAULT

```
CREATE TABLE R (
```

```
    ID int PRIMARY KEY,
```

```
    a int
```

```
)
```

```
CREATE TABLE S (
```

```
    ID int PRIMARY KEY,
```

```
    FKaufR int DEFAULT 3 REFERENCES R
```

```
ON DELETE SET DEFAULT
```

```
)
```

# SET DEFAULT: Daten aus R löschen...

**DELETE FROM** R

**WHERE** ID=2

Query returned successfully: one row affected, 20 ms execution time.

S		R	
<u>id</u> integer	fkaufr integer	<u>id</u> integer	a integer
1	2	1	47
2	1	2	42
3	2	3	32

vorher

S		R	
<u>id</u> integer	fkaufr integer	<u>id</u> integer	a integer
1	3	1	47
2	1	3	32
3	3		

nachher

# DROP TABLE CASCADE

**DROP TABLE R**

ERROR: cannot drop table r because other objects depend on it  
DETAIL: constraint s\_fkaufr\_fkey on table s depends on table r  
HINT: Use DROP ... CASCADE to drop the dependent objects too.

**DROP TABLE R CASCADE**

S		R	
<u>id</u> integer	fkaufr integer	<u>id</u> integer	a integer
1	2	1	47
2	1	2	42
3	2	3	32

vorher

S	
<u>id</u> integer	fkaufr integer
1	2
2	1
3	2

nachher

# Effekt von DROP TABLE CASCADE

```
CREATE TABLE S (  
    ID int PRIMARY KEY,  
    FKaufR int DEFAULT 3  
)
```

<u>id</u> integer	fkaufR integer
1	2
2	1
3	2

