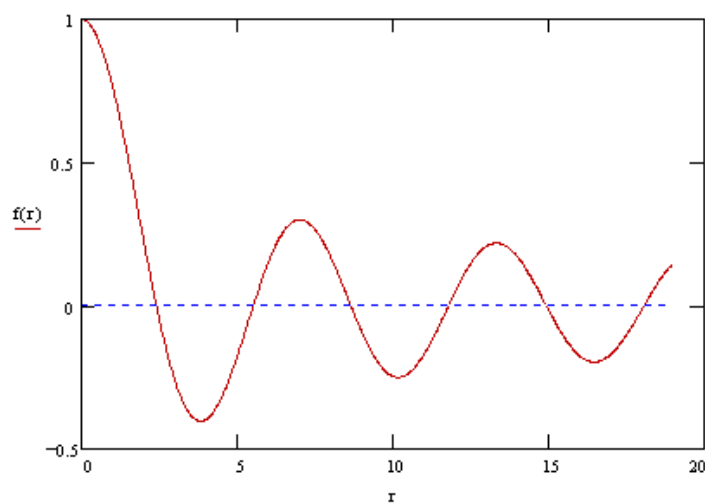
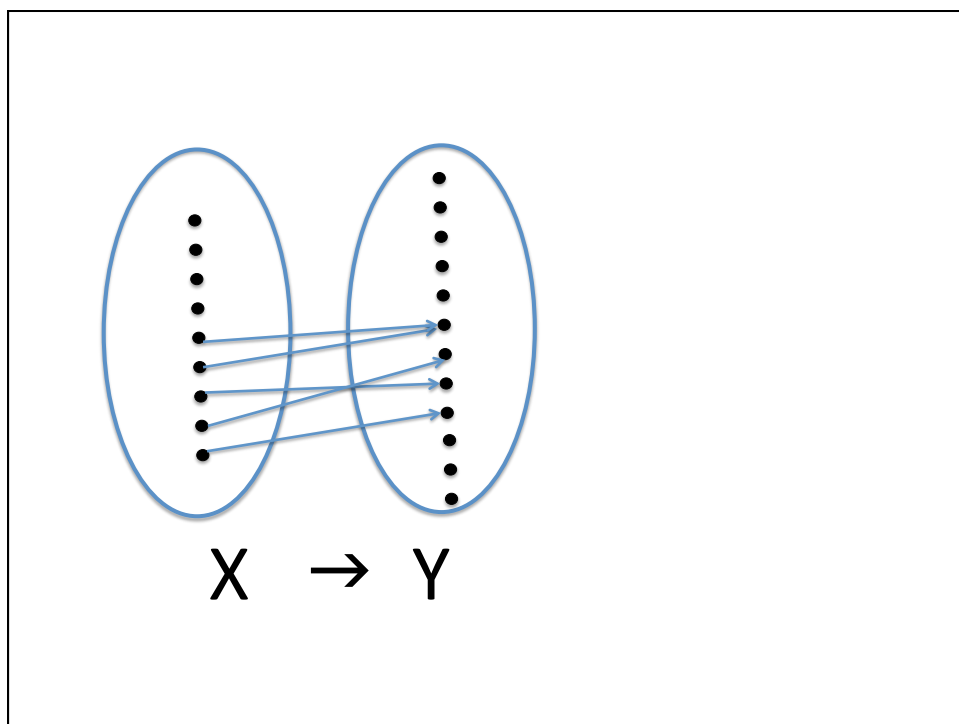
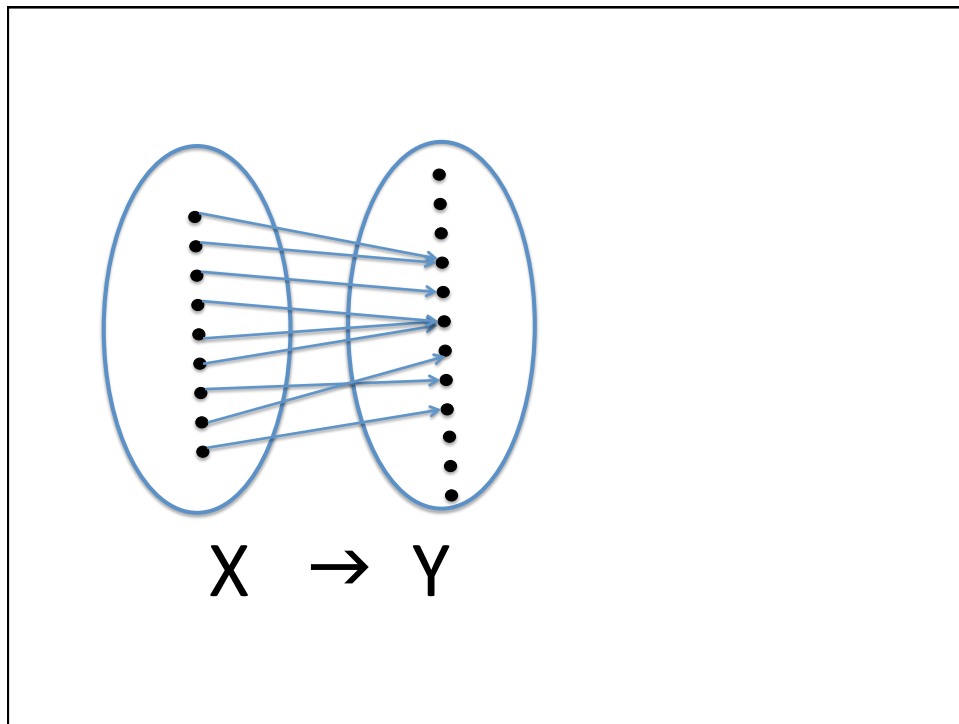
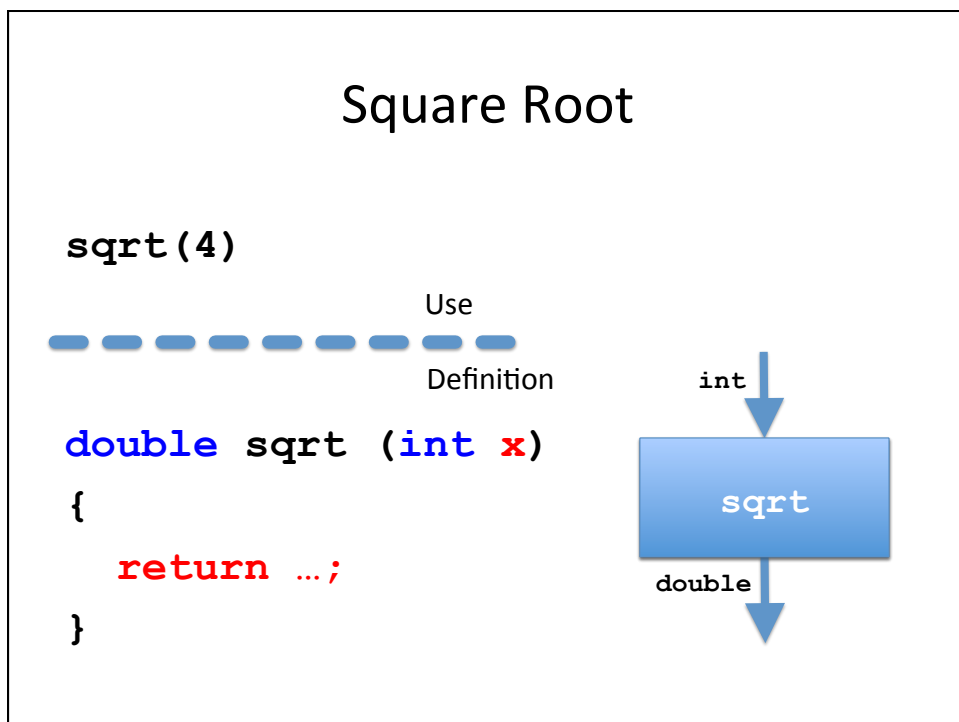
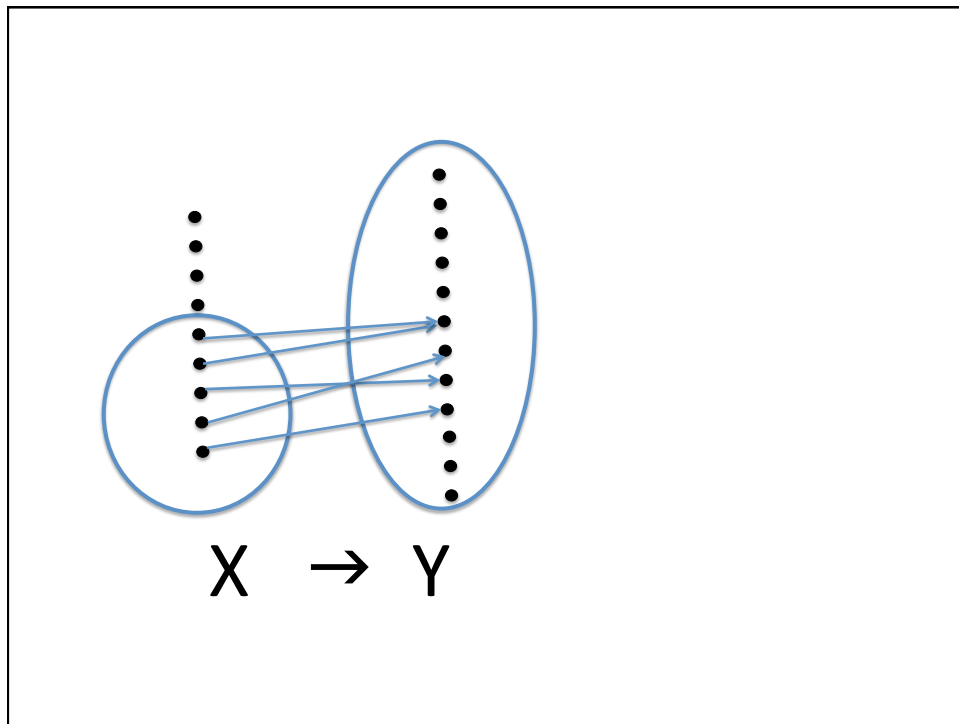


PARTIAL DEFINI- TION





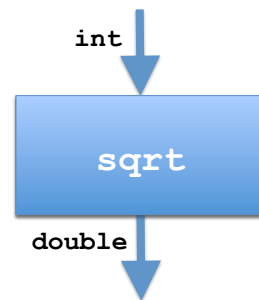


Square Root

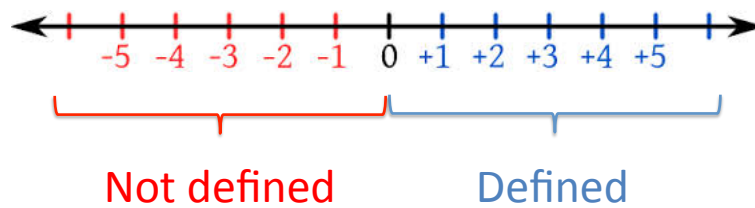
`sqrt(-4)`



```
double sqrt (int x)
{
    return ...;
}
```



Square Root: Partial Definition



$$\mathbb{N} \rightarrow \mathbb{R}$$

What to do?



1. Expect an error!
 - The programmer should pay more attention
2. Give information for correct use
 - Help the programmer pay attention
3. Prepare useful documentation
 - Help building this documentation
4. Treat this case programmatically
 - Program the exceptional cases

Comments

Javadoc

Exceptions

Comments

```
double sqrt (int x) {  
    /* x has to be  
       non-negative */  
    return ...;  
}
```

Javadoc

```
double sqrt (int x) {  
    /**  
     * @param x an int value  
     *   Precondition: x>=0  
     * @return the non-neg. sq. root  
     */  
    return ...;  
}
```

Exceptions

```
double sqrt (int x) throws NegEx{  
    if (x<0) {throw new NegEx();}  
    return ...;  
}
```

