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Mathematics for Computer Science
MIT 6.042J/18.062J

Proof by Cases

Albert R. Mayer February II. 2013 cases 1
```

```
if ((x>0) || (x <= 0 && y>100))

OR : AND

(more code)

better: if ((x>0) || y>100)

:
 (more code)
```

```
if ((x>0) \parallel (x \le 0 & y>100))

OR

AND

(x>0) \parallel (y>100)

if ((x>0) \parallel y>100)

OR

So both are true
```

```
|f((x>0)|| (x \le 0 & y>100))
|f((x>0)|| (x \le 0 & y>100))
|f((x>0)|| (y>100)
|f((x>0)|| y>100)
```

```
if (x \le 0 & y > 100)

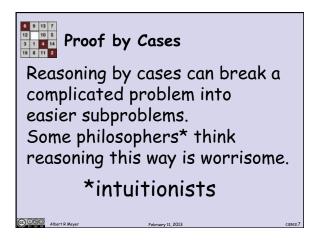
if (y > 100)
```

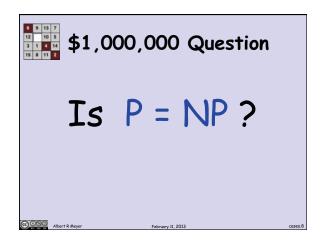
```
if (y>100)

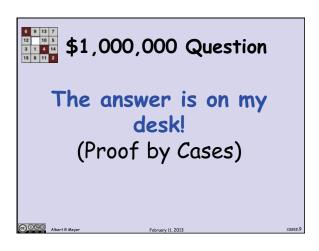
if (y>100)

if (y>100)

so both still the same
```







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