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October 11, 2024

$$p \wedge q \rightarrow q \wedge p$$

```
[1]: import subprocess
```

```
[2]: codice = '''
theorem and_commutative (p q : Prop) : p  q → q  p :=
  fun hpq : p  q =>
    have hp : p := And.left hpq
    have hq : q := And.right hpq
    show q  p from And.intro hq hp
'''
```

```
[3]: with open('codice.lean', 'w') as documento:
      documento.write(codice)
```

```
[4]: esecuzione = subprocess.run(['/home/mrz/lean-4.10.0-linux/bin/lake', 'env', '
↳ 'lean', 'codice.lean'], capture_output = True, text = True)
```

```
[5]: print(esecuzione)
```

```
CompletedProcess(args=['/home/mrz/lean-4.10.0-linux/bin/lake', 'env', 'lean',
'codice.lean'], returncode=0, stdout='', stderr='')
```

```
[ ]:
```