## Peter and Quentin

| $\mathbf{r}$ | $\boldsymbol{\sim}$ | $\mathbf{p}$ | $\boldsymbol{\sim} \Rightarrow \mathbf{p}$ | $\mathbf{r}$ | $\mathbf{q}$ | $\sim \mathbf{q}$ | $\mathbf{r} \Rightarrow \sim \mathbf{q}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| T | F | T | T | T | T | F | F |
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## Peter and Quentin riding their bikes together.

If Quentin's riding his bike it can't be raining. Peter must ride his bike when it's not raining. So you conclude it's not raining.

## Peter riding on his own.

If Quentin isn't riding his bike, it might be raining or not raining. Conversely
Peter can ride in all weathers. So you can draw no conclusion about the weather.

## Quentin riding on his own.

If Quentin's riding his bike it can't be raining. But then Peter should be riding. So either your mistaken or someone's breaking the rules.

## Neither of them riding their bikes to school.

If it's not raining Peter should be riding. So it must be raining which is why Quentin isn't riding either.

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