How do I manually update a remote tracking branch, say, to undo a fetch?

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One of my colleagues who writes git tools wanted to know how to force a local repo's remote tracking branch into a stale state. Doing so would allow testing of various edge cases.

```
$ git fetch origin
remote: Enumerating objects: 15, done.
remote: Counting objects: 100% (15/15), done.
remote: Total 15 (delta 0), reused 6 (delta 0), pack-reused 0
From http://contoso.com/sample
   844de02..01781ca  main        -> origin/main
```

How can we "unfetch" the `origin/main` branch so the local repo thinks that the remote is still on `844de02`?

The magic command is `git update-ref`. This command lets you set the commit for any branch or tag.

```
$ git update-ref refs/remotes/origin/main 844de02
```

You can also use it to undo the creation of a branch via a fetch.

```
$ git fetch origin
remote: Enumerating objects: 22, done.
remote: Counting objects: 100% (22/22), done.
remote: Total 22 (delta 0), reused 9 (delta 0), pack-reused 0
From http://contoso.com/sample
 * [new branch]      dev         -> origin/dev
```

You can delete the remote tracking branch by saying

```
$ git update-ref -d refs/remotes/origin/dev
```