

For radio buttons in one group, the name is shared, and each button has a value.

colour.py

```
#!/usr/local/bin/python3
from cgi import enable
enable()
```

```
from cgi import FieldStorage
print('Content-Type: text/html')
print()
```

```
dereks_mint_tint = 'green'
form_data = FieldStorage()
guess = form_data.getfirst('guess')
```

```
if guess == dereks_mint_tint:
    outcome = 'right'
else:
    outcome = 'wrong'
reponse = 'You are %s.' % (outcome)
```

```
print(...)
```

Protect our program (validate input)

Put a default value (the empty string) in guess:

```
guess = form_data.getfirst('guess', '')
```

Check that the guess is legal:

```
if guess not in ['red', 'blue', 'green']:
    response = 'Please use the form to choose a colour.'
```

Toppings.html and Toppings.py

Multiple values are submitted here. The parameter is given different values one after the other, e.g. guesses=chocolate&guesses=nails.

For the multiple values we use: `form_data.getlist('guesses')`. This gives us a list.

Fixing the program

We use sets instead of lists. Get the input as a list and then cast it as a set: `set(form_data.getlist('guesses'))`. Also replace all other lists with sets.

Then we use intersection (&) to get the set of correct guesses and set difference (-) twice to get the missing guesses and incorrect guesses.