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

## colour.py

#!/usr/local/bin/python3  
from cgitb 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.