```
disp("3.2.21 Find value of x using Log10")
disp("Finding x from 2^(2x) = 5^(x + 1)")
disp("The first thing we should do is get x")
disp("on one side of the equation.")
disp("To do this we put log with base 10")
disp("on both sides and we get: ")
disp("(2x)log(2) = (x + 1)log(5)")
disp("log(2) = ")
disp(log(2))
disp("log(5) = ")
disp(log(5))
disp("Then 2x*0.6931 - x*1.6094 = 1.6094")
disp("Which means x = ")
syms x
disp(solve(2*x*0.6931 - x*1.6094 == 1.6094))
disp(" = ")
disp(-8047/1116)
```

```
3.2.21 Find value of x using Log10
Finding x from 2^(2x) = 5^(x + 1)
The first thing we should do is get x
on one side of the equation.
To do this we put log with base 10
on both sides and we get:
(2x)log(2) = (x + 1)log(5)
log(2) =
   0.693147180559945

log(5) =
   1.609437912434100

Then 2x*0.6931 - x*1.6094 = 1.6094
Which means x =
-8047/1116

 =
  -7.210573476702509
```

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