Recurring Decimals to Fractions

Convert $0.\dot{6}\dot{3}$ to a fraction

We call our number x $0.\dot{6}\dot{3} = x$

To isolate the recurring element we multiply by 100 $63.\dot{6}\dot{3} = 100x$

We eliminate the recurring bit by subtracting x from $100x$

$63 = 99x$

$x = 63/99$

$x = 7/11$