In the circuit shown below, find the small-signal gain from input to output.
In the circuit shown below, find the small-signal gain from input to output.
For the circuit shown below, find the small-signal gain from input to output.
For the circuit shown below, find the small-signal gain from input to output.
Find small-signal Norton equivalent Rin, Rout, and Gm. Assume $C_1=\infty$ and $r_o=\infty$. 
Find the small-signal gain from input to output.
Find the small-signal gain from input to output.
Find small-signal $R_{in}$ and $Gain$. Assume $C_1=\infty$ and $r_o=\infty$. 

![Circuit Diagram]
Find small-signal Rin and small-signal Gain. Assume $r_o = \infty$. 

\[ 
\begin{aligned} 
&V_{dd} \\
&\text{R} \\
&V_{out} \\
&\text{Vin} \\
&Q_1 \\
&Q_2 \\
&Q_3 \\
\end{aligned} 
\]
Find small-signal Gain ($\text{Gain} = Gm \cdot Rout$). Assume $r_o = \infty$. 

![Circuit Diagram]
Find small-signal $R_{out}$. Assume $r_o = \infty$. 

![Diagram]
Find Rout. Assume $r_o = \infty$. 

```
Vdd

Q1
R

Rout=?
```

```
Rout=?

Q1
R

```

```
Rout=?

Q1
R

```