In the circuit shown below:

a. What is the equivalent resistance for the 3 resistors (4 points)?

b. How much current is coming out of the battery (3 points)?

c. How much current is passing through the 3 Ω resistor (3 points)?

\[ \begin{array}{c}
\text{9 V} \\
\text{1Ω} \\
\text{6Ω} \\
\text{3Ω}
\end{array} \]

\( a) \quad 3+6 \text{ in parallel} \)

\[ \frac{1}{R_p} = \frac{1}{3} + \frac{1}{6} \]

\[ R_p = 2 \Omega \]

1 Ω in series with 2 Ω \( \Rightarrow \) \( R_{\text{equiv}} = 3 \Omega \)

\( b) \quad \frac{I}{3 \Omega} \)

\[ V = IR \]

\[ q = I(2) \]

\[ I = 3 \text{ amp} \]

\( c) \quad V_{\text{drop}} \text{ for } 2 \Omega \)

\[ V = IR = (3)(2) = 6 \text{ Volts} \]

For 3 Ω:

\[ I = \frac{V}{R} = \frac{6}{3} = 2 \text{ A} \]