In the circuit shown, (a) What is the equivalent resistance for all 3 resistors? (b) How much current is passing through the 6 Ω resistor? (c) How much power is being dissipated in the 3 Ω resistor?

\[ \frac{1}{R_p} = \frac{1}{6} + \frac{1}{3} = \frac{1}{2} \]

\[ R_p = 2 \]

(a) all 3 resistors = 3 Ω

Loop starting at *

\[ +24 - I(1) - I(2) - 6 = 0 \]

\[ I = 6 \text{ A} \]

\[ V = IR = 12 \text{ V} \]

(b) For 6 Ω

\[ I = \frac{V}{R} = \frac{12}{6} = 2 \text{ A} \]

(c) For 3 Ω

\[ P = \frac{V^2}{R} = \frac{(12)^2}{3} = 48 \text{ W} \]