1. (65)

When a 75Ω resistor is connected, the current is 2A. When a 200Ω resistor is connected, the voltage is 200V. a) How much current will flow when a 12.5Ω resistor is connected? b) What resistor will consume the most power?

Substitute:

\[ V_{TH} + 1(R_{TH}) + 200 = 0 \]
\[ R_{TH} = \frac{200}{200} = 1 \]

Use the principle of superposition to find I.

\[ I = \frac{250}{62.5} = 4A \]

2. (35)

\[ I = \frac{4(5)}{5+20} = 0.8A \]