Problem B

Determine the equivalent resistance between terminals A and B. Show each transformation step.

1. **Note:** 8 and 10 are in series
   \[ R = 8 + 10 = 18 \]

2. **Note:** 2 and 18 are in parallel
   \[ R_A = \frac{R_1 \times R_2}{R_1 + R_2} = \frac{2 \times 18}{20} = 1.8 \text{ Ohms} \]

3. **Note:** 1.8 and 3 are in series
   \[ R = 1.8 + 3 = 4.8 \text{ Ohms} \]

4. **Note:** 4.8 and 3.5 are in parallel
   \[ R_B = \frac{R_1 \times R_2}{R_1 + R_2} = \frac{4.8 \times 3.5}{12.3} = 1.23 \text{ Ohms} \]

\[ R_{eq} = 1.23 \text{ Ohms} \]