E2 homework

Answer all questions. Use the Data Booklet. Total: 12 marks.

1 **State** 2.7 kΩ in ohms. **[1]**

2 V = 9 V, I = 3 mA. **Calculate** R. **[2]**

3 1 kΩ, 2 kΩ and 3 kΩ in series on 12 V. **Calculate** the current and V across 3 kΩ. **[3]**

4 6 kΩ ∥ 3 kΩ. **Calculate** R_t. **[2]**

5 LED 2.0 V, 20 mA, supply 6 V. **Calculate** R. **[2]**

6 **Explain** why total resistance falls when a branch is added in parallel. **[2]**