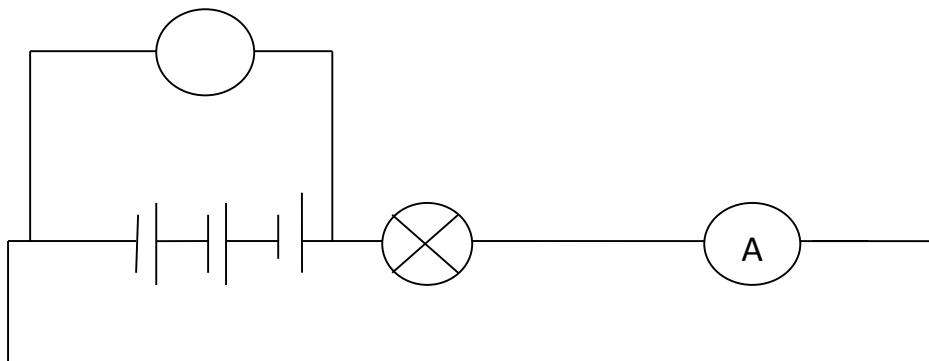# Question #61551, Physics / Electric Circuits

Three 1.50V dry cells are connected in series to give a total voltage of 4.50V. A 12.0W lamp is connected in a circuit with the three dry cells.

a)Draw a schematic circuit diagram showing the dry cells and the lamp. Place an ammeter in the circuit to measure the current through the circuit. Place a voltmeter in the circuit to measure the potential different across the battery.

The answer to the question.

Indications voltmeter: 4.50 V

Indications ammeter: $I = \dfrac{P}{V} = \dfrac{12\ W}{4.5\ V} = 2.67\ A$