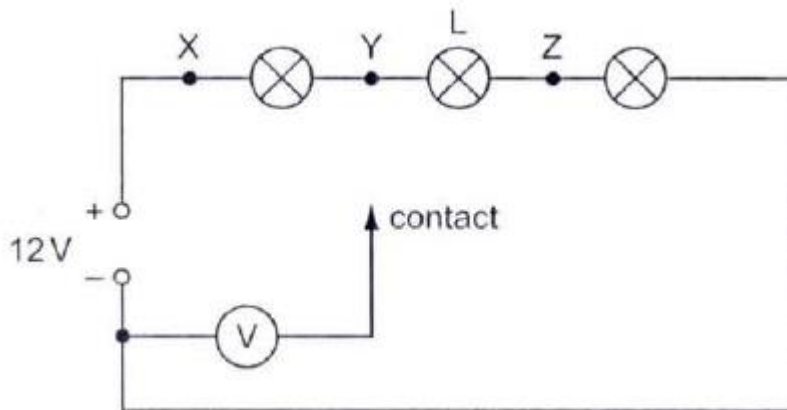


The diagram shows three lamps in series with a 12 V supply.



The lamps **do not light** because lamp L has a broken filament.

To test the circuit, the contact of the ideal voltmeter is connected in turn to points X, Y and Z and the voltmeter reading at each point is recorded.

Which of the following sets of readings is correct?

|          | reading at X | reading at Y | reading at Z |
|----------|--------------|--------------|--------------|
| <b>A</b> | 12 V         | 8 V          | 4 V          |
| <b>B</b> | 8 V          | 8 V          | 0 V          |
| <b>C</b> | 12 V         | 12 V         | 0 V          |
| <b>D</b> | 8 V          | 12 V         | 4 V          |