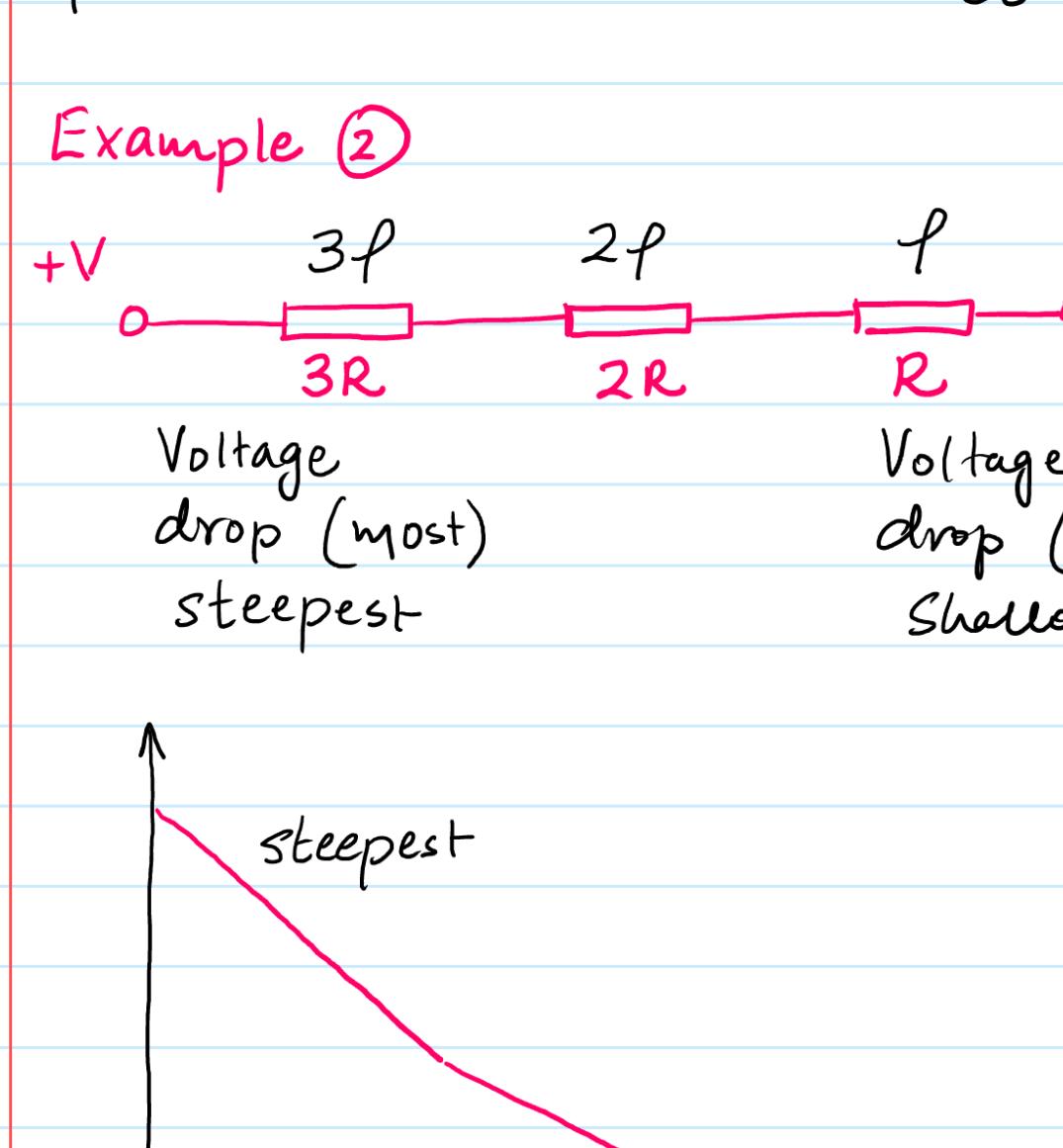
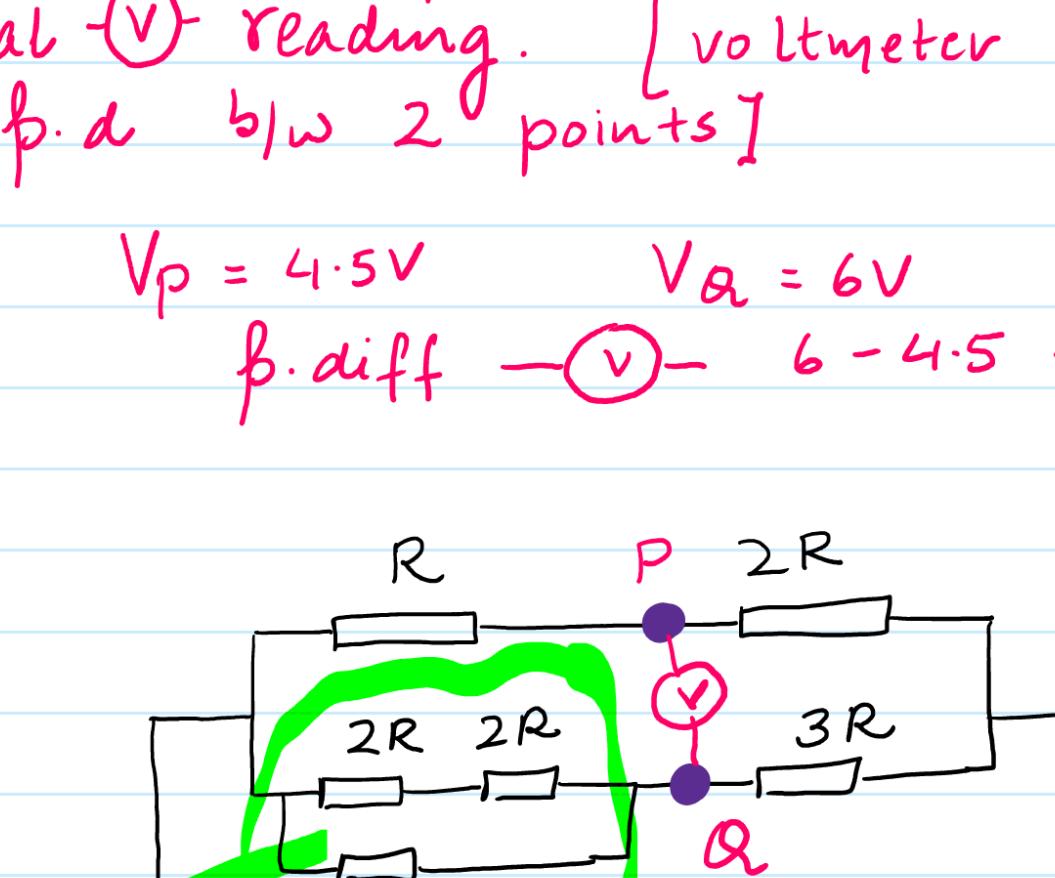
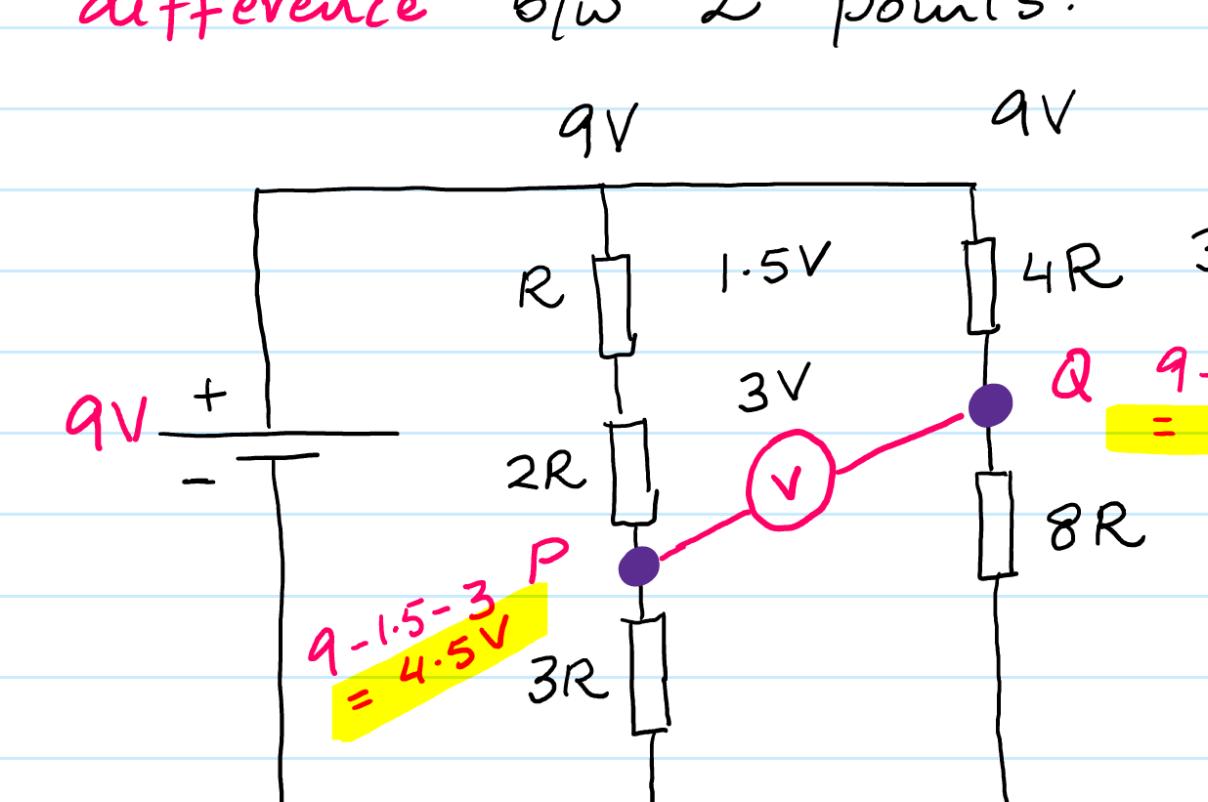


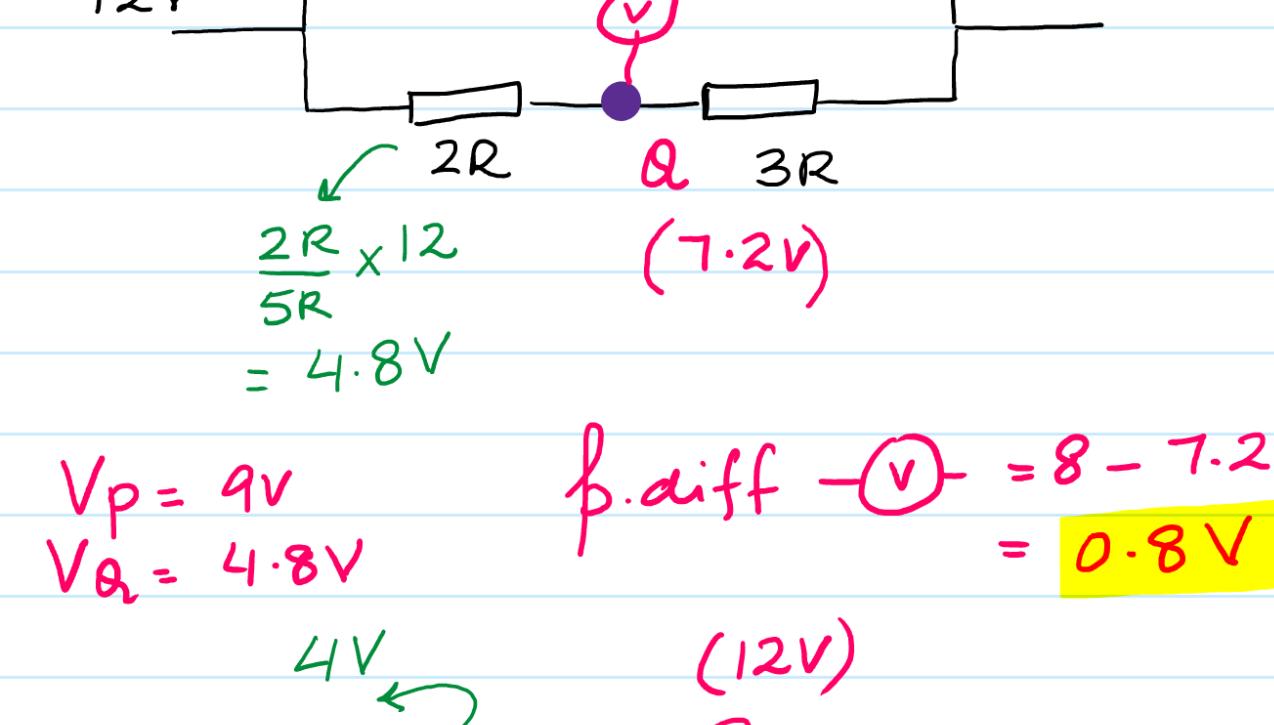
Sketch a graph to show how voltage varies as we move from P to Q.



Example (2)



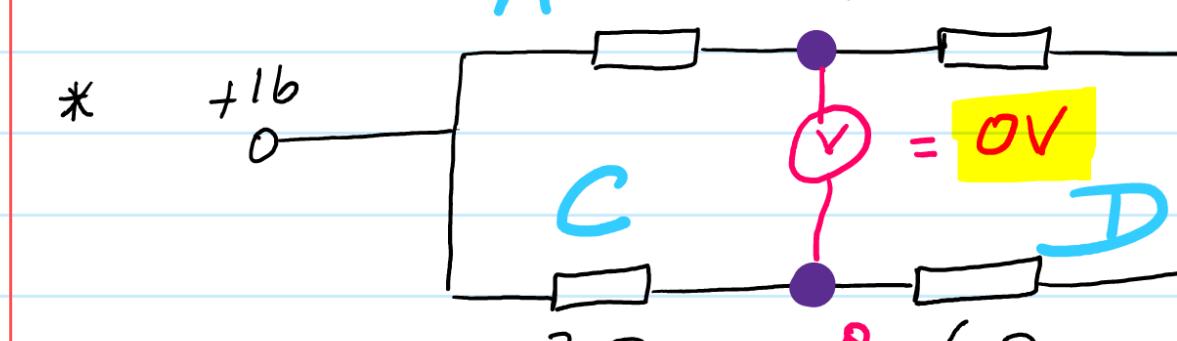
* How to calculate potential difference b/w 2 points.



Cal v reading. [voltmeter measures p.d b/w 2 points]

$$V_p = 4.5V \quad V_Q = 6V$$

p.dif $\text{v} = 6 - 4.5 = 1.5V$



$$\frac{2R}{5R} \times 12 = 4.8V$$

$$V_p = 9V \quad V_Q = 4.8V$$

p.dif $\text{v} = 8 - 7.2 = 0.8V$

$$+16V \quad 5\Omega \quad 15\Omega \quad 2\Omega \quad 4\Omega \quad 10.7V$$

$\text{v} = 1.3V$

$$+16V \quad 5\Omega \quad 15\Omega \quad 2\Omega \quad 6\Omega \quad 12V$$

$\text{v} = 0V$

In this condition, $V_p (12V) = V_Q (12V)$

\therefore potential diff b/w them is $0V$, hence the v records $0V$ as well. This condition is known as Zero deflection or Null deflection

Note: for this condition to arise, the resistors must follow a certain sequence / battery

$$\frac{A}{B} = \frac{C}{D}$$

$$1 : 3$$

$$5 : 15$$

$$2 : 6$$

$$1 : 3$$