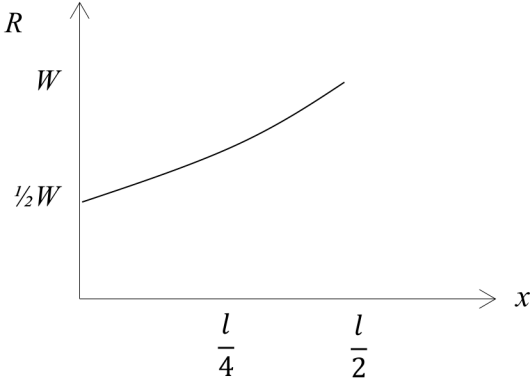


| Question Number | Answer | Mark |
|-----------------------|--|-------------------|
| 13(a) | <ul style="list-style-type: none"> Point at which weight is taken to act. | (1) |
| | | (1) |
| 13(b) | <ul style="list-style-type: none"> Gradient everywhere positive Stops at $R = \text{weight}/W/mg$ at $l/2$ Starts at $R = \frac{1}{2} \text{ weight}/0.5W/0.5mg$ etc.  | (1) (1) (1) |
| | | (3) |
| 13(c) | <ul style="list-style-type: none"> Centre of gravity/mass is not above the shelf. Or Line of action of weight does not pass through the shelf. There is a net moment clockwise. Or No anticlockwise moment to balance moment of weight. | (1) (1) |
| | | (2) |
| Total for question 13 | | 6 |