

- 3 Two parallel plates are in a vacuum. One plate is positively charged and the other plate is earthed.

A rectangular conductor of width x is placed midway between the plates so that its faces are a distance x from each plate, as shown in Fig. 3.1.

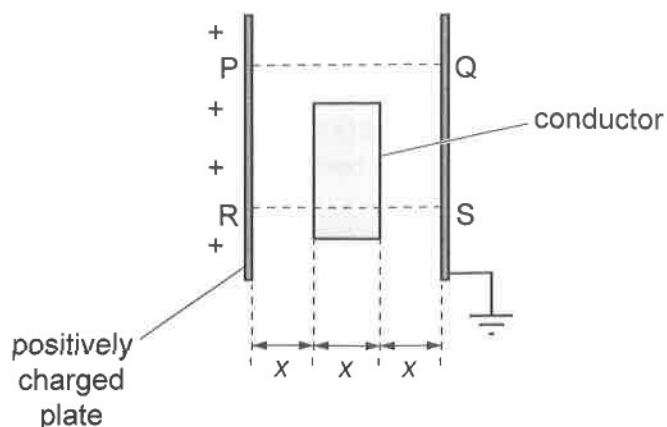


Fig. 3.1

- (a) The variation with distance from P to Q of the electric potential along line PQ is shown in Fig. 3.2.

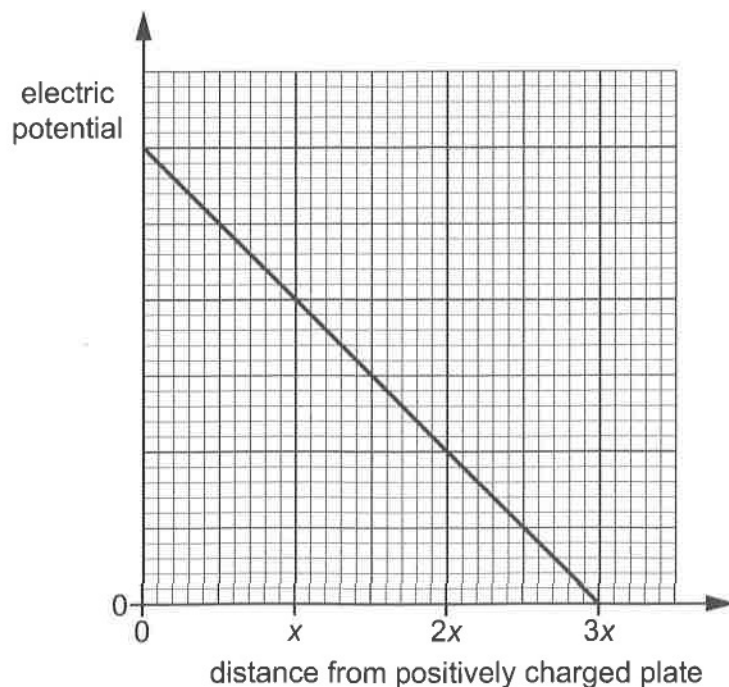


Fig. 3.2

On Fig. 3.2, draw a line to show the variation with distance from R to S of the electric potential along the line RS.

[2]



- (b) The variation with distance from P to Q of the electric field strength along line PQ is shown in Fig. 3.3.

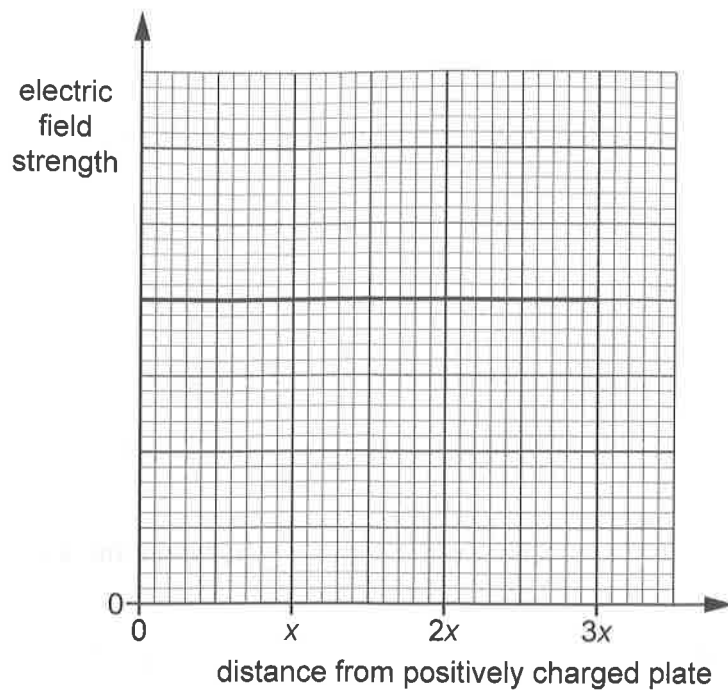


Fig. 3.3

On Fig. 3.3, draw a line to show the variation with distance from R to S of the electric field strength along the line RS. [3]

[Total: 5]

