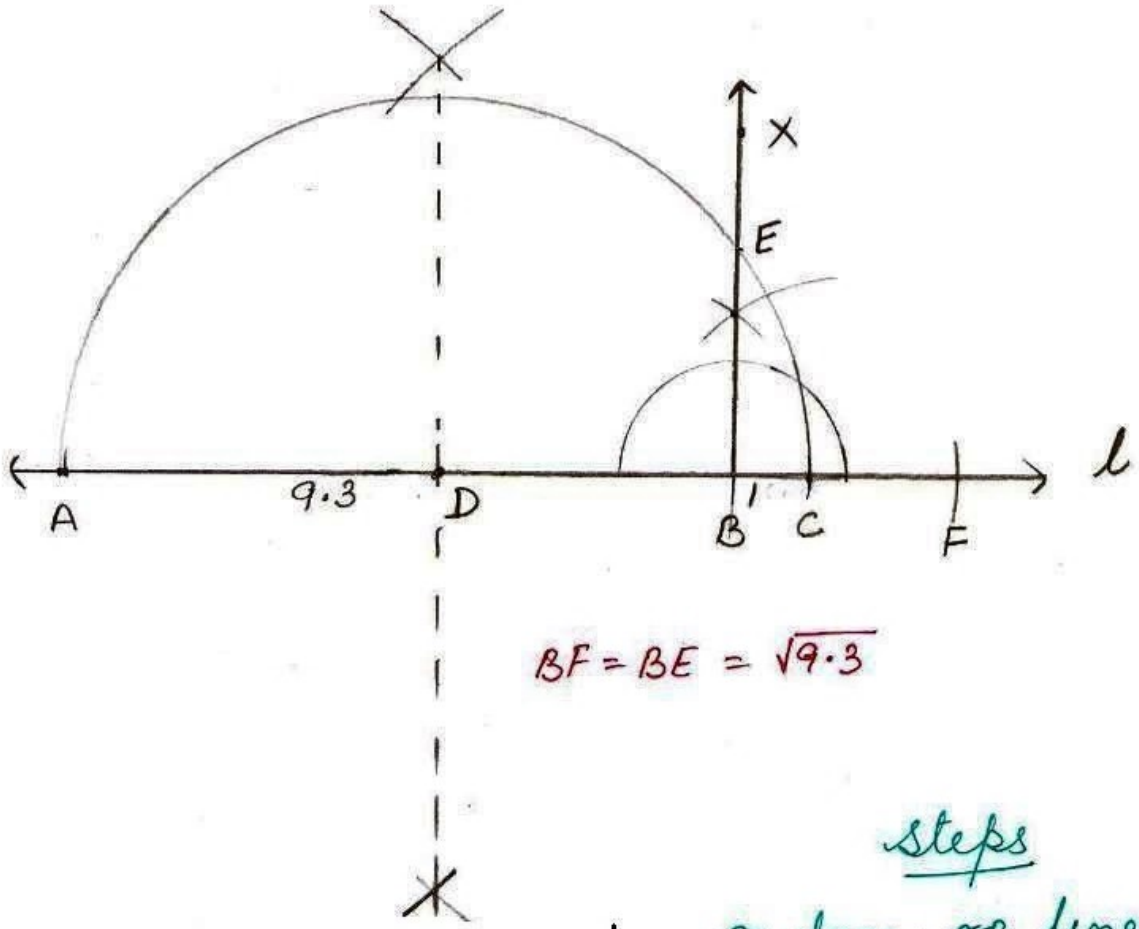
(4)



$BF = BE = \sqrt{9.3}$

Steps

1. draw ~~AB~~ line l, $AB = 9.3$ cm, $BC = 1$ cm
2. draw per bis. of AC intersecting it at D
3. with centre D and radius = DA or DC draw a semicircle
4. draw $BX \perp l$ intersecting semi ⊙ at E
5. $BE = \sqrt{9.3}$
6. draw $BF = BE = \sqrt{9.3}$

Proof

$DC = \frac{1}{2} \times AC$

$= \frac{1}{2} \times 10.3$

$= \frac{10.3}{2}$ cm

$\therefore$ radius $DE = \frac{10.3}{2}$ cm

$DB = \frac{10.3}{2} - 1$

$= \frac{8.3}{2}$ cm

In rt $\triangle DBE$

$BE = \sqrt{\left(\frac{10.3}{2}\right)^2 - \left(\frac{8.3}{2}\right)^2}$

$= \sqrt{\frac{2}{2} \times \frac{18.6}{2} 9.3}$ (using $a^2 - b^2 = (a-b)(a+b)$)

$= \sqrt{9.3}$