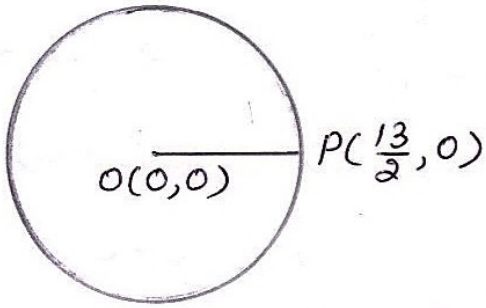
(15) required point is midpoint of hypotenuse

let $P(a,b)$

$a = \frac{0+2x}{2} = x$ $\quad b = \frac{2y+0}{2} = y$

$\therefore P(x,y)$ (A)

(16)



radius $OP = \frac{13}{2} - 0$

$= \frac{13}{2}$ units

$OA = \sqrt{(-\frac{3}{4}-0)^2+(1-0)^2}$

$= \sqrt{\frac{9}{16}+1}$

$= \frac{5}{4}$ < radius

$OB = \sqrt{(2-0)^2+(\frac{7}{3}-0)^2}$

$= \frac{\sqrt{85}}{3}$ < radius

$OC = \sqrt{(5-0)^2+(-\frac{1}{2}-0)^2}$

$= \frac{\sqrt{101}}{2}$ < radius

$OD = \sqrt{(-6-0)^2+(\frac{5}{2}-0)^2}$

$= \sqrt{\frac{169}{4}}$

$= \frac{13}{2}$ = radius (D)