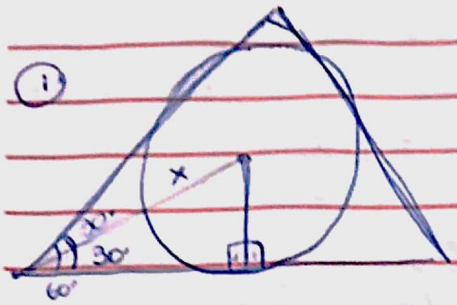
Lugar geométrico e pontos notáveis do triângulo - Tarefa básica

①

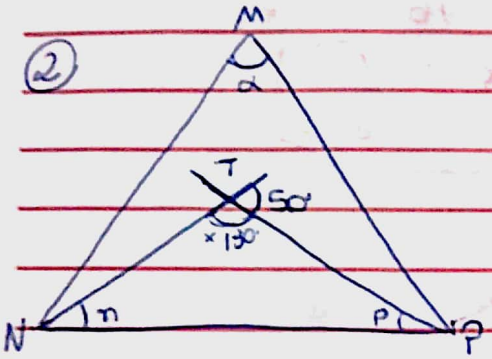


$\operatorname{sen} 30° = \frac{1}{x}$

$\frac{1}{2} = \frac{1}{x} \Rightarrow x = 2$

alternativa "D"

②



$50 + x = 180°$

$x = 180° - 50°$

$x = 130°$

$x + n + P = 180°$

$130 + n + P = 180°$

$n + P = 180 - 130$

$n + P = 50°$

$100° + \alpha = 180°$

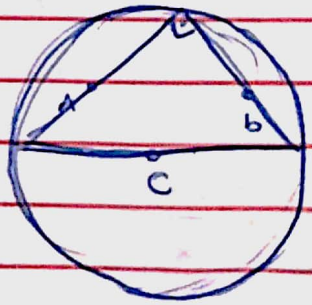
$\alpha = 180° - 100°$

$\alpha = 80°$

$50 : 2 = 100°$

alternativa "E"

③



alternativa "b"

se um dos lados do triângulo inscrito é diâmetro, esse quadrado é retângulo.

4) $D = 2r$

$\frac{3}{8} = 2r$

$r = \frac{3}{8} : \frac{2}{1} \Rightarrow r = \frac{3}{16}$

$\frac{x+1}{2} = \frac{3}{8} + \frac{3}{16}$

$\frac{x+1}{2} = \frac{6}{16} + \frac{3}{16}$

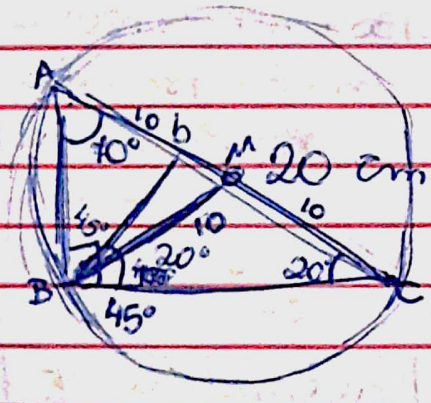
$\frac{x+1}{2} = \frac{9}{16}$

$x = \frac{9}{16} - \frac{1}{2}$

$x = \frac{9}{16} - \frac{8}{16}$

$\boxed{x = \frac{1}{16}}$

5)



$90° + 20° = 110°$

$180° - 110° = 70°$

a) $h = D = 2r = 20$

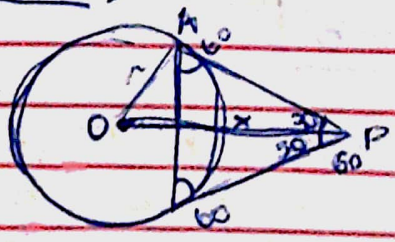
$\frac{20}{2} = 10$ $\boxed{r = 10}$

b) $x + 20° = 45°$

$x = 45° - 20°$

$\boxed{x = 25°}$

6)



$\text{sen } 30° = \frac{1}{2} = \frac{r}{x}$

$\boxed{x = 2r}$