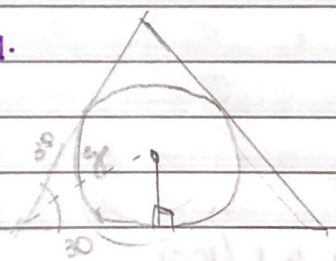
# Tarefa básica

1. 


$\sin 30 = \frac{1}{y}$ $\quad y = 2$ //

2. N+P: $180 - 50 = 130°$ $\quad TPN + PNT = 50°$ $\quad MNP + NPM = 100°$

$NMP + 100 = 180$

$NMP = 180 - 100 = 80°$ //

3. (B) retangulo, vertices tangentes diante ao circulo

4. $\sin 30° = \frac{1}{2} = \frac{3}{16/y}$ $\quad y = \frac{3}{8}$

$R + y = X + 1/2$

$3/16 + 3/8 = X + 1/2$

$9/16 = X + 1/2$

$X = 9/16 + 1/2$

$X = 9/16 - 1/2$

$X = \frac{1}{16}$ //

5. a) $\operatorname{sen} 70° = \cos 20°$ $\cos 70° = \operatorname{sen} 20°$ $ABC, BAC = 70°$ $ACB = 20$

$AB^2 = AM^2 + BM^2 - 2 \cdot AM \cdot BM \cdot \cos(AMB)$

$(20 \cdot \cos^2 70°)^2 = 10^2 + BM^2 - 20 \cdot BM \cdot \cos AMB$

$400 \cdot \cos^2 70 = 100 + BM^2 - 20 \cdot BM \cos AMB$

$BC^2 = MC^2 + BM^2 - 2 \cdot MC \cdot BM \cdot \cos BMC$

$(20 \operatorname{sen} 70°)^2 = 10^2 + BM^2 - 2 \cdot 10 \cdot BM \cdot \cos AMB$

$400 \operatorname{sen}^2 70° = 100 + BM^2 + 20 \cdot BM \cdot \cos AMB$

$400 (\cos^2 70 + \operatorname{sen}^2 20) = 200 + 2 \cdot BM^2$

$400 = 200 + 2 \cdot BM^2$

$200 = 2 \cdot BM^2$

$BM^2 = 200/2$

$BM = \sqrt{\frac{200}{2}} = \sqrt{100}$

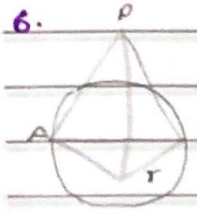
$BM = 10$ //

b) $\frac{10}{\operatorname{sen} 20} = \frac{10}{\operatorname{sen} MBC} = 20$ //

$45 = MBN + 20$

$MBN = 45 - 20 = 25$ //

6.




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

$x = 2r$ //