TRIGONOMETRÍA

1 $S=9k \quad C=10k \quad R=\frac{\pi}{20}k$

$$F=\frac{\sqrt{S+C}+\sqrt{C-S}}{(\sqrt{19}+1)\sqrt{R}}$$

$$F=\frac{\sqrt{19k}+\sqrt{k}}{(\sqrt{19}+1)\sqrt{\frac{\pi}{20}k}}$$

$$F=\frac{\sqrt{19}\cdot\sqrt{k}+\sqrt{k}}{(\sqrt{19}+1)\cdot\sqrt{\frac{\pi}{20}}\cdot\sqrt{k}}$$

$$F=\frac{\cancel{\sqrt{k}}(\sqrt{19}+1)}{\cancel{(\sqrt{19}+1)}\sqrt{\frac{\pi}{20}}\cdot\cancel{\sqrt{k}}}=\frac{1}{\sqrt{\frac{\pi}{20}}}$$

$$\therefore F=\sqrt{\frac{20}{\pi}}$$

3 PIDEN: $R=\frac{\pi}{20}(k)$

DATO: $C^2-S^2=\frac{19}{9}$

$$(10k)^2-(9k)^2=\frac{19}{9}$$

$$100k^2-81k^2=\frac{19}{9}$$

$$\cancel{19}k^2=\frac{\cancel{19}}{9}$$

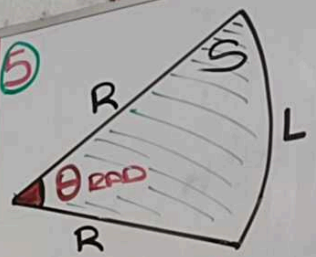
$$k^2=\frac{1}{9}$$

$$k=\frac{1}{3}$$

$$R=\frac{\pi}{20}\left(\frac{1}{3}\right)$$

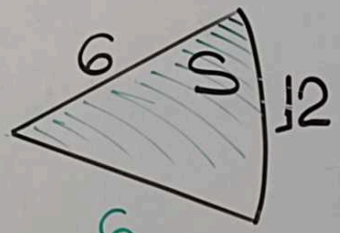
$$\therefore R=\frac{\pi}{60}$$

5



$$L=\theta\cdot R$$

$S=\frac{\theta R^2}{2}$	$S=\frac{L\cdot R}{2}$	$S=\frac{L^2}{2\theta}$



$$S=\frac{\cancel{12}^{6}\cdot 6}{\cancel{2}}$$

$$\therefore S=36$$

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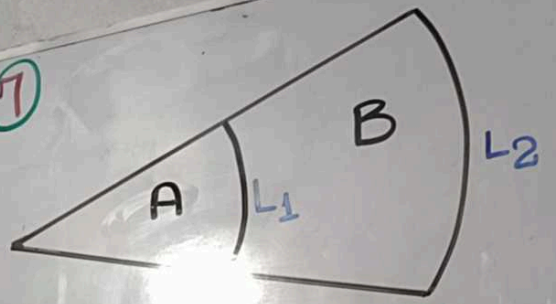
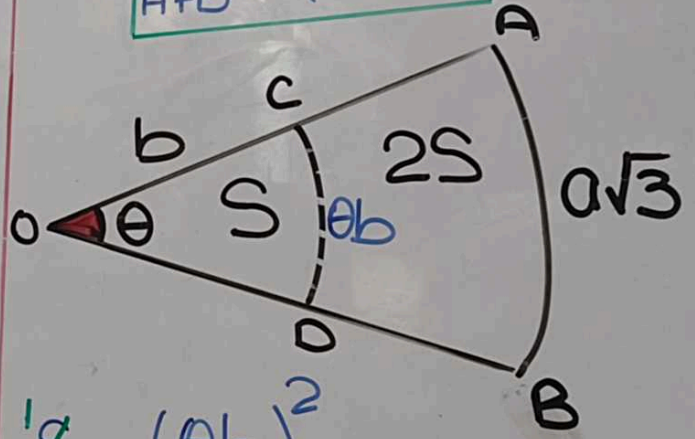


$$\frac{A}{A+B}=\left(\frac{L_1}{L_2}\right)^2$$



$$\frac{S}{3S}=\left(\frac{\theta b}{a\sqrt{3}}\right)^2$$

$$\frac{1}{\sqrt{3}}=\frac{\theta b}{a\sqrt{3}} \rightarrow \theta=\frac{a}{b}$$

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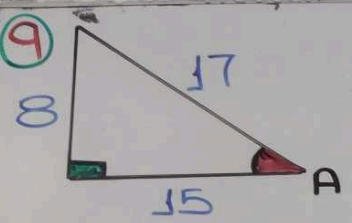

DATO:

$$\frac{SEN A}{COS A} = \frac{8}{\sqrt{15}}$$

$TAN A = \frac{8}{\sqrt{15}}$ ← C.O / ← C.A

PIDEN:

$E = SEN A - COS A$

$= \frac{8}{17} - \frac{\sqrt{15}}{17}$

$E = \frac{-7}{17}$

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$SEN\alpha = COS\theta$
$TAN\alpha = COT\theta$
$SEC\alpha = CSC\theta$
$\} \alpha + \theta = 90°$

$SEN(6x-36°) - Cos(2x+46°) = 0$

$SEN(6x-36°) = Cos(2x+46°)$

SUMAN 90°

$8x + 10° = 90°$

$8x = 80°$

$x = 10°$

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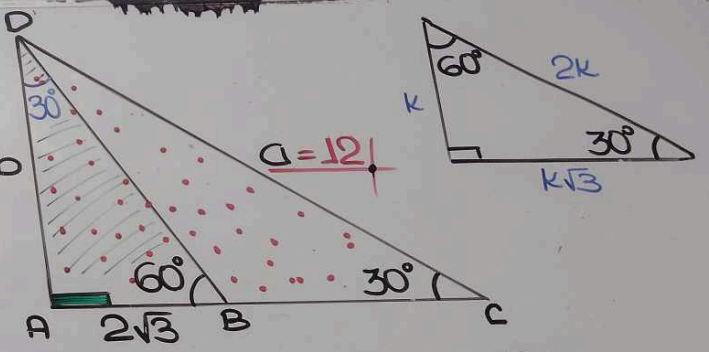
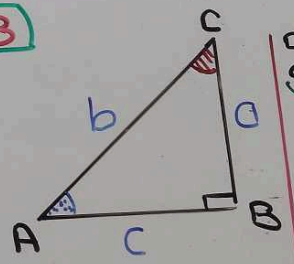


$\frac{12.\sqrt{3}}{6} = b$

8



$a^2 + c^2 = b^2$

DATO:

$SEN A . SEN C = \frac{1}{k}$

$\frac{a}{b} \cdot \frac{c}{b}$

$\frac{a.c}{b^2} = \frac{1}{k}$

PIDEN:

$TAN A + TAN C$

$\frac{a}{c} + \frac{c}{a}$

$\frac{a^2+c^2}{a.c}$

$\frac{b^2}{a.c} = k$

TRIGONOMETRÍA

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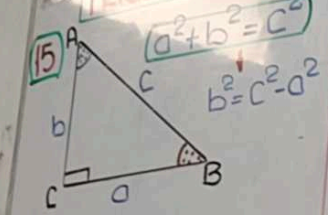
$a^2+b^2=c^2$

$b^2=c^2-a^2$



DATO:

TANA = 2SECB

$\frac{a}{b}=2\cdot\frac{c}{a} \rightarrow a^2=2bc$ ✓

PIDEN:

$CSC^2B-2SECA$

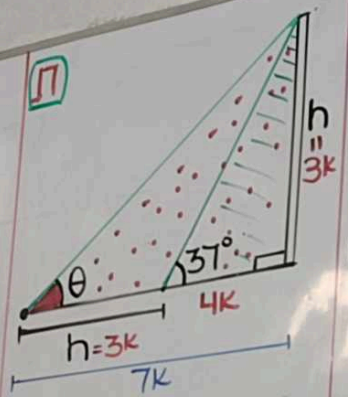
$\frac{c^2}{b^2}-2\frac{c}{b}\times\frac{b}{b}$

$\frac{c^2-2bc}{b^2}$

$\frac{c^2-a^2}{b^2}=\frac{b^2}{b^2}$

1

17

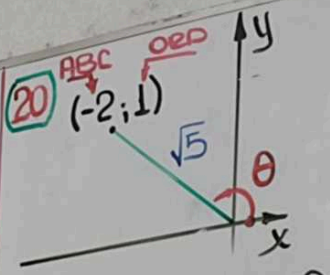


PIDEN:

$COT\theta=\frac{7k}{3k}$

$\therefore COT\theta=\frac{7}{3}$

20



$E=\sqrt{5}\,CSC\theta-COT\theta$

$=\sqrt{5}\cdot\left(\frac{\sqrt{5}}{1}\right)-\frac{-2}{1}$

$=5+2$

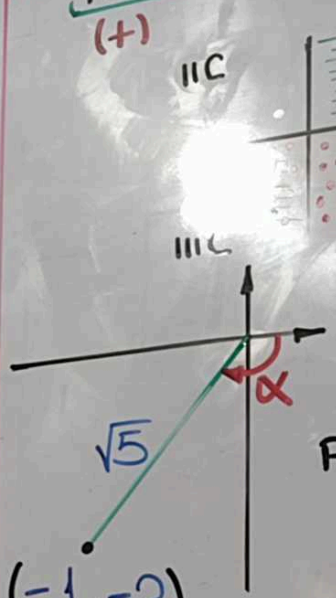
$\therefore E=7$

IIC	IC
SEN CSC +	TODAS +
TAN COT +	COS SEC +
IIIC	IVC

21

$TAN\alpha=2$; $|SEN\alpha|=-\frac{SEN\alpha}{(-)}$

(+)



$\cdot TAN\alpha=\frac{2}{1}$ ← ORD, ← ABC

PIDEN:

$|COS\alpha|+2|SEN\alpha|$

$\left|\frac{-1}{\sqrt{5}}\right|+2\left|\frac{-2}{\sqrt{5}}\right|$

$\frac{1}{\sqrt{5}}+\frac{4}{\sqrt{5}}$

$\frac{5}{\sqrt{5}}\times\frac{\sqrt{5}}{\sqrt{5}}=\sqrt{5}$

9

8