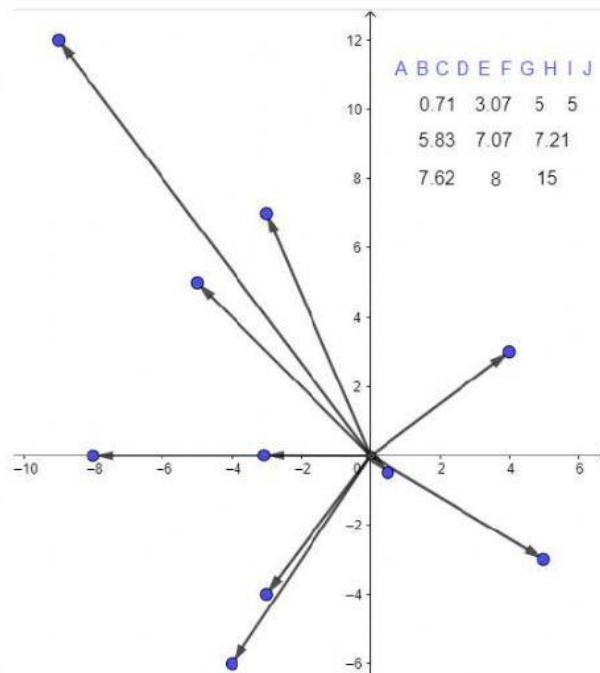




ACTIVIDAD 1

1. Encontrar los valores exactos de $\text{Sen}(\theta)$, $\text{Cos}(\theta)$, $\text{Tan}(\theta)$, $\text{Csc}(\theta)$, $\text{Sec}(\theta)$ y $\text{Cot}(\theta)$, si el lado final del ángulo θ en posición normal contiene el punto dado. Realizar la gráfica de cada uno de ellos.

- $(-3, 7) \rightarrow \text{Sen}\theta \approx \quad \rightarrow \text{Cos}\theta \approx$
- $(5, -3) \rightarrow \text{Tan}\theta = \quad \rightarrow \text{Sec}\theta \approx$
- $(-4, -6) \rightarrow \text{Csc}\theta \approx \quad \rightarrow \text{Cot}\theta \approx$
- $(\frac{1}{2}, -\frac{1}{2}) \rightarrow \text{Sen}\theta \approx \quad \rightarrow \text{Tan}\theta =$
- $(4, 3) \rightarrow \text{Cos}\theta = \quad \rightarrow \text{Tan}\theta =$
- $(-5, 5) \rightarrow \text{Cot}\theta = \quad \rightarrow \text{Cos}\theta \approx$
- $(-3, -4) \rightarrow \text{Csc}\theta = \quad \rightarrow \text{Cos} =$
- $(-8, 0) \rightarrow \text{Cos}\theta = \quad \rightarrow \text{Tan}\theta =$
- $(-9, 12) \rightarrow \text{Sec}\theta \approx \quad \rightarrow \text{Cot}\theta =$
- $(-3, 0) \rightarrow \text{Sen}\theta = \quad \rightarrow \text{Sec}\theta =$



-1.67 -1.2 -1 -1 -1 -1 -0.75 -0.71 -0.71 -0.6 -0.6
-0.39 0 0 0.67 0.75 0.8 0.92 1.25 1.17

2. Teniendo en cuenta el cuadrante al que pertenece cada ángulo, definir el signo de cada operación.

- | | |
|--|---|
| a. $\frac{\text{Tan}45 \times \text{Cos}300}{\text{Csc}350}$ 0 | d. $\frac{\text{Cos}190 \times \text{Tan}359 \times \text{Sec}350}{\text{Csc}345}$ 0 |
| b. $\frac{\text{Sec}250 \times \text{Ctg}120}{\text{Csc}160}$ 0 | e. $\frac{\text{Tan}344 \times \text{Sen}210 \times \text{Cot}260}{\text{Sec}132 \times \text{Cos}135}$ 0 |
| c. $\frac{\text{Sen}150 \times \text{Sec}260 \times \text{Tan}350}{\text{Cot}249}$ 0 | f. $\frac{\text{Cos}190 \times \text{Tan}300 \times \text{Sec}120}{\text{Ctg}37}$ 0 |

3. Hallar el seno, cotangente, secante y cosecante de cada ángulo cuadrantal.

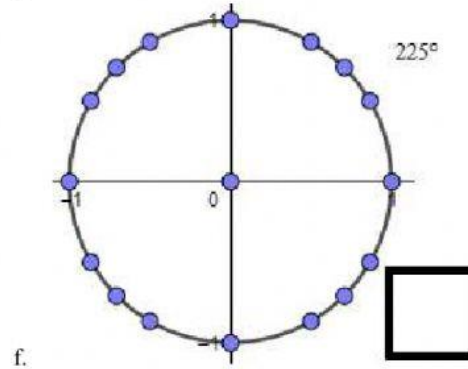
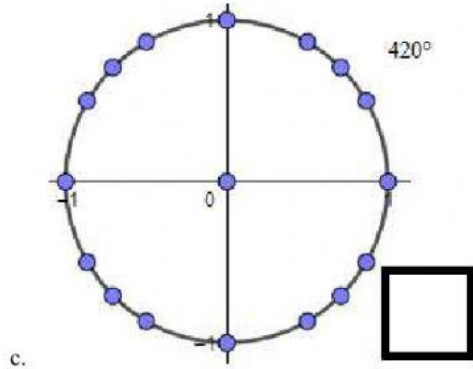
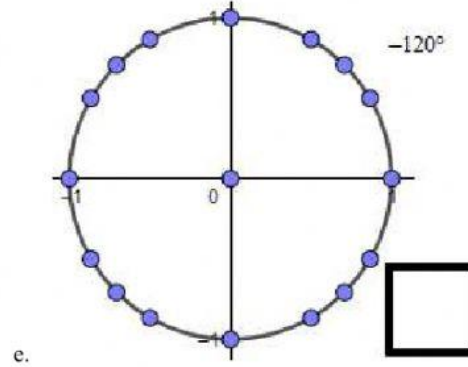
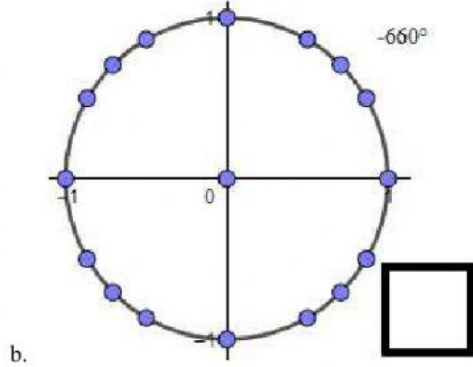
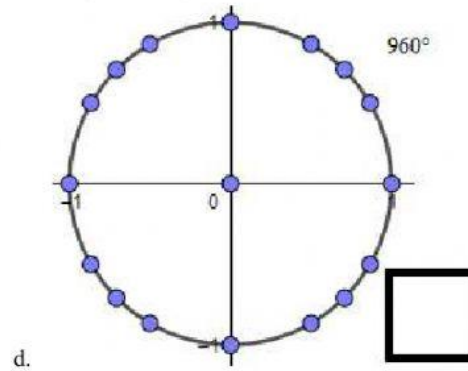
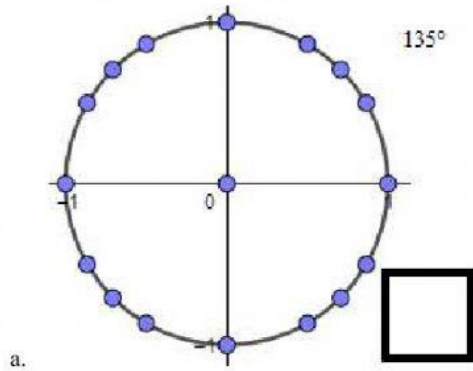
$$\begin{array}{l}
 \text{Sen}0 = \quad \rightarrow \text{Cos}0 = \quad \rightarrow \text{Tan}0 = \quad \rightarrow \text{Cot}0 = \quad \rightarrow \text{Sec}0 = \quad \rightarrow \text{Csc}0 = \\
 \text{Sen}90 = \quad \rightarrow \text{Cos}90 = \quad \rightarrow \text{Tan}90 = \quad \rightarrow \text{Cot}90 = \quad \rightarrow \text{Sec}90 = \quad \rightarrow \text{Csc}90 = \\
 \text{Sen}\pi = \quad \rightarrow \text{Cos}\pi = \quad \rightarrow \text{Tan}\pi = \quad \rightarrow \text{Cot}\pi = \quad \rightarrow \text{Sec}\pi = \quad \rightarrow \text{Csc}\pi = \\
 \text{Sen}270 = \quad \rightarrow \text{Cos}270 = \quad \rightarrow \text{Tan}270 = \quad \rightarrow \text{Cot}270 = \quad \rightarrow \text{Sec}270 = \quad \rightarrow \text{Csc}270 =
 \end{array}$$

4. Hallar el valor de las seis funciones trigonométricas para el ángulo θ establecido en la circunferencia unitaria, con el punto $p(x, y)$.

- $(-\frac{1}{2}, -\frac{\sqrt{3}}{2}) \rightarrow \text{Sen}\theta = \quad \rightarrow \text{Cos}\theta = \quad \rightarrow \text{Tan}\theta = \quad \rightarrow \text{Cot}\theta = \quad \rightarrow \text{Sec}\theta = \quad \rightarrow \text{Csc}\theta =$
- $(\frac{3}{5}, -\frac{4}{5}) \rightarrow \text{Sen}\theta = \quad \rightarrow \text{Cos}\theta = \quad \rightarrow \text{Tan}\theta = \quad \rightarrow \text{Cot}\theta = \quad \rightarrow \text{Sec}\theta = \quad \rightarrow \text{Csc}\theta =$
- $(\frac{12}{13}, -\frac{5}{13}) \rightarrow \text{Sen}\theta = \quad \rightarrow \text{Cos}\theta = \quad \rightarrow \text{Tan}\theta = \quad \rightarrow \text{Cot}\theta = \quad \rightarrow \text{Sec}\theta = \quad \rightarrow \text{Csc}\theta =$
- $(-\frac{\sqrt{11}}{4}, -\frac{\sqrt{5}}{4}) \rightarrow \text{Sen}\theta = \quad \rightarrow \text{Cos}\theta = \quad \rightarrow \text{Tan}\theta = \quad \rightarrow \text{Cot}\theta = \quad \rightarrow \text{Sec}\theta = \quad \rightarrow \text{Csc}\theta =$

$$\begin{array}{cccccccccccccccc}
 \sqrt{3} & -2 & \sqrt{\frac{5}{11}} & \sqrt{\frac{11}{5}} & -\frac{4\sqrt{11}}{11} & -\frac{4\sqrt{5}}{5} & -\frac{2\sqrt{3}}{3} & -\frac{\sqrt{11}}{4} & -\frac{\sqrt{5}}{4} & \frac{\sqrt{3}}{3} & -\frac{\sqrt{3}}{2} & -\frac{1}{2} \\
 -\frac{3}{4} & -\frac{4}{5} & \frac{3}{5} & \frac{12}{13} & -\frac{13}{5} & -\frac{5}{12} & \frac{5}{3} & -\frac{12}{5} & -\frac{4}{3} & \frac{13}{12} & -\frac{5}{4} & -\frac{5}{13}
 \end{array}$$

5. Hallar el ángulo de referencia para cada uno de los siguientes ángulos(dibújalos):



6. Determinar el valor de las funciones trigonométricas mediante reducción al I cuadrante o a través de ángulos coterminales de los siguientes ángulos.

- | | | | |
|----------------|---|---|---|
| a. 150° | → | → | → |
| b. 330° | → | → | → |
| c. $3\pi/4$ | → | → | → |
| d. -60° | → | → | → |
| e. 210° | → | → | → |
| f. 750° | → | → | → |
| g. 225° | → | → | → |
| h. 315° | → | → | → |
| i. 240° | → | → | → |
| j. $2\pi/3$ | → | → | → |