

12. Knowing that $P(t) = \left(\cos t, \frac{5}{13}\right)$ is a trigonometric point located in the 2nd quadrant, determine

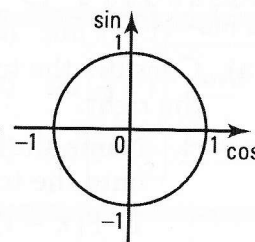
a) $\cos t = \frac{-12}{13}$ b) $\sec t = \frac{-13}{12}$ c) $\csc t = \frac{5}{13}$
 d) $\tan t = \frac{-5}{12}$ e) $\cot t = \frac{-12}{5}$

13. For each of the following trigonometric points, give the two possible values for the missing coordinate.

a) $P\left(\frac{1}{2}, \dots\right) \pm \frac{\sqrt{3}}{2}$ b) $P\left(\dots, \frac{\sqrt{3}}{2}\right) \pm \frac{1}{2}$ c) $P(\dots, 0.6) \pm 0.8$
 d) $P\left(\frac{-5}{13}, \dots\right) \pm \frac{12}{13}$ e) $P\left(\frac{2}{3}, \dots\right) \pm \frac{\sqrt{5}}{3}$ f) $P\left(\dots, \frac{\sqrt{2}}{2}\right) \pm \frac{\sqrt{2}}{2}$

14. A trigonometric point $P(t)$ has an x -coordinate of $\cos t = 0.8$.

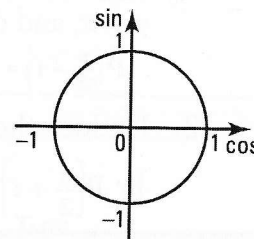
- a) If the point $P(t)$ is located in the 1st quadrant,
 1. determine the y -coordinate $\sin t$. $\sin t = 0.6$
 2. deduce, in degrees, the value of t knowing that $0 \leq t \leq 90^\circ$.
 $t = 36.9^\circ$
 3. deduce, in degrees, the value of t knowing that $360^\circ \leq t \leq 450^\circ$.
 $t = 396.9^\circ$



- b) If the point $P(t)$ is located in the 4th quadrant,
 1. determine the y -coordinate $\sin t$. $\sin t = -0.6$
 2. deduce, in degrees, the value of t knowing that $270^\circ \leq t \leq 360^\circ$. $t = 323.1^\circ$
 3. deduce, in degrees, the value of t knowing that $630^\circ \leq t \leq 720^\circ$. $t = 683.1^\circ$

15. A trigonometric point $P(t)$ has an x -coordinate of $\cos t = -0.6$.

- a) If the point $P(t)$ is located in the 2nd quadrant,
 1. determine the y -coordinate $\sin t$. $\sin t = 0.8$
 2. deduce, in degrees, the value of t knowing that $90^\circ \leq t \leq 180^\circ$.
 $t = 53.1^\circ$
 3. deduce, in degrees, the value of t knowing that $450^\circ \leq t \leq 540^\circ$.
 $t = 413.1^\circ$



- b) If the point $P(t)$ is located in the 3rd quadrant,
 1. determine the y -coordinate $\sin t$. $\sin t = -0.8$
 2. deduce, in degrees, the value of t knowing that $180^\circ \leq t \leq 270^\circ$. $t = 233.1^\circ$
 3. deduce, in degrees, the value of t knowing that $540^\circ \leq t \leq 630^\circ$. $t = 593.1^\circ$

16. A trigonometric point $P(t)$ has a y -coordinate of $\sin t = \frac{5}{13}$.

- a) If the point $P(t)$ is located in the 1st quadrant,
 1. determine the x -coordinate $\cos t$. $\cos t = \frac{12}{13}$
 2. deduce, in degrees, the value of t knowing that $0^\circ \leq t \leq 90^\circ$. $t = 22.6^\circ$
 b) If the point $P(t)$ is located in the 2nd quadrant,
 1. determine the x -coordinate $\cos t$. $\cos t = \frac{-12}{13}$
 2. deduce, in degrees, the value of t knowing that $90^\circ \leq t \leq 180^\circ$. $t = 157.4^\circ$

