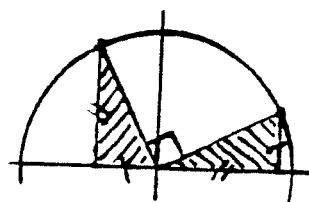
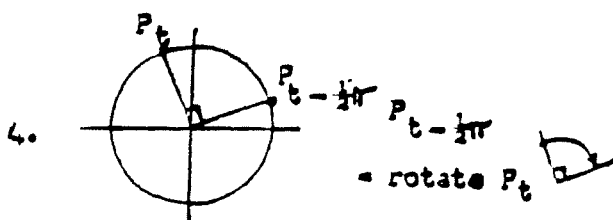
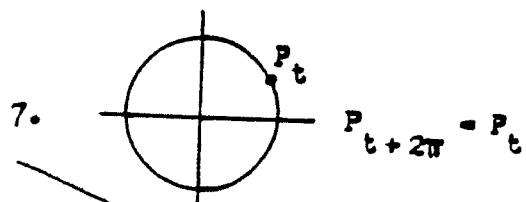
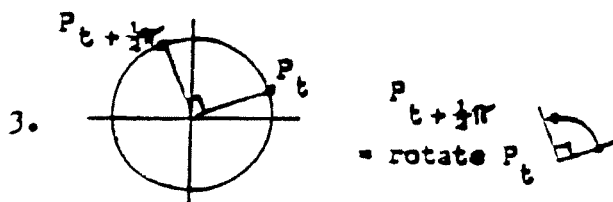
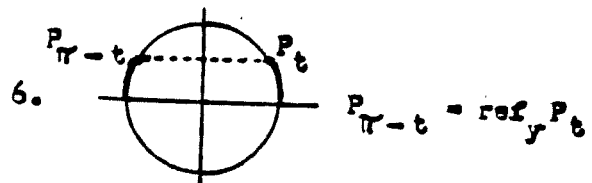
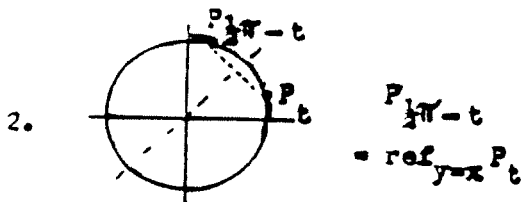
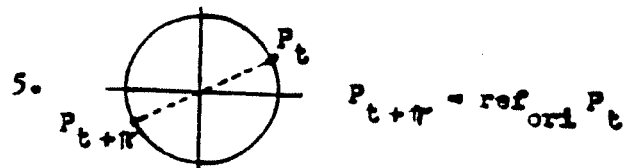
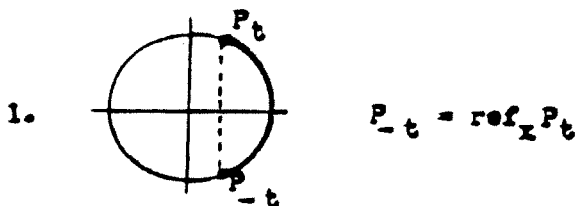


SOME TRIG IDENTITIES

An identity is an equation which holds for all values of the variable.
We list seven pairs of sin/cos identities.

- | | |
|--|---------------------------------------|
| 1. $\cos(-t) = \cos t$ (even) | 5. $\cos(t+\pi) = -\cos t$ |
| $\sin(-t) = -\sin t$ (odd) | $\sin(t+\pi) = -\sin t$ |
| 2. $\cos(\frac{1}{2}\pi - t) = \sin t$ | 6. $\cos(\pi - t) = -\cos t$ |
| $\sin(\frac{1}{2}\pi - t) = \cos t$ (complement) | $\sin(\pi - t) = \sin t$ (supplement) |
| 3. $\cos(t + \frac{1}{2}\pi) = -\sin t$ | 7. $\cos(2\pi + t) = \cos t$ |
| $\sin(t + \frac{1}{2}\pi) = \cos t$ | $\sin(2\pi + t) = \sin t$ (periodic) |
| 4. $\cos(t - \frac{1}{2}\pi) = \sin t$ | |
| $\sin(t - \frac{1}{2}\pi) = -\cos t$ | |

Corresponding to each identity we give below a picture of 2 points on the unit circle. One point is P_t , the other is the point whose coordinates are illustrated by the identity. The relative position of the 2 points illustrates the identity.



In 3 & 4, the shaded triangles are congruent.