

WHY π IS EQUAL TO 180°

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In ancient time sky was observed by astrologists. It was found that a particular star changed its position every day. Such change in the position and that unit change was referred to a degree change. It was further observed that after 365 days the same star was observed in the first position. The sky was divided in 365 degrees. Coincidentally the Moon takes approximately 27.3 days to rotate around the earth and makes 13.36 rotations in 365 days. These figures might have been rounded off to 360 degrees in a year and 12 Moons rotation means 12 month in a year, for sake of easy calculations. Thus solar and lunar calendars emerged. Least common multiple (LCM) of 5, 10, 12, 15, 20, 30, 60, 120, 180 comes out to be 360 and that might have helped the astronomers to a great extent for quick calculations. Perhaps Mayan's had adopted sexagesimal (Base 60) numerical system.

Now why 180 degree is equal to π ? Fundamentally it has nothing to do with 180 degree. If our Earth were to take 400 days to rotate around Sun then 200 degree would have been equal to π because 200 degree forms a half a circle.