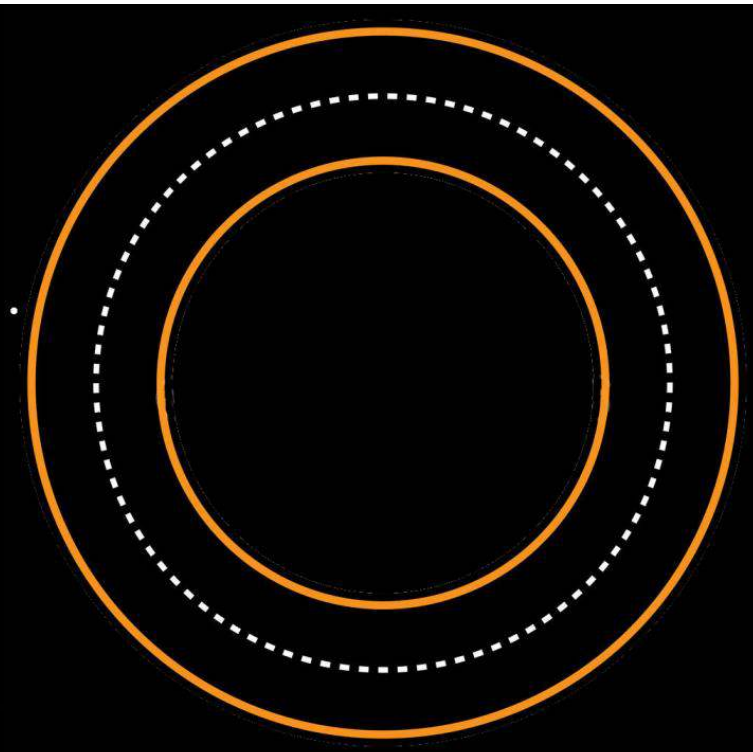
These Slides Accompany the YouTube Video Tutorial:
https://www.youtube.com/watch?v=7AS17sb27do

# Circular Track: Assorted Problems





Circumference of 90 centimeters is divided into three equal lengths. Ants A, B, and C start to crawl clockwise starting from one of the three points. A is ahead of B and B is ahead of C at speeds 3 cm/s, 5 cm/s, & 10 cm/s. How long does it take for the three ants to arrive at the same spot for the first time?

C & B: Meet at A at 6, (18 + 6) 24, (36+6) 42, (54 + 6) 60 etc.
A and B meet at 15, (15+45) 60, (15 + 90) 105 and so on
600, 330, 240

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Amy and Amanda walk on a circular track. Amy starts from spot A, and Amanda starts from spot B. They walk in opposite directions. After 6 minutes, they meet, 4 more minutes later, Amy arrives at spot B. 8 more minutes later, they meet again. How many minutes does it take for both to walk the full circle?

a/x = 1/10, b/x = 1/15 and L = 2x
(a+b)/a = 10/6, b=2/3 and L/a+b = 12



A and B start running in opposite directions (towards each other) on a circular track starting at diametrically opposite points. They first meet after A has run for 75m and then they next meet after B has run 100 m after their first meeting. Find circumference of the track

75/(d-75) = (2d-100)/100
d = 125, 2d = 250

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Two friends A and B simultaneously start running around a circular track. They run in the same direction. A travels at 6 m/s and B runs at b m/s. If they cross each other at exactly two points on the circular track and b is a natural number less than 30, how many values can b take?

1, 10, 18



Three friends A, B and C decide to run around a circular track. They start at the same time and run in the same direction. A is the quickest and when A finishes a lap, it is seen that C is as much behind B as B is behind A. When A completes 3 laps, C is the exact same position on the circular track as B was when A finished 1 lap. Find the ratio of the speeds of A, B and C?

L = 5d, or L = 5/2d, 5:4:3 or 5:3:1