



Professional Development Webinars

A Slice of Pi Across the Ages

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Are you hungry for some pi(e)?



1 radian means a central angle of a circle whose arc length equals the radius.

There are 2π radians in a circle.



How much pie is a good-sized piece?



Discovering Pi – Circles Lab



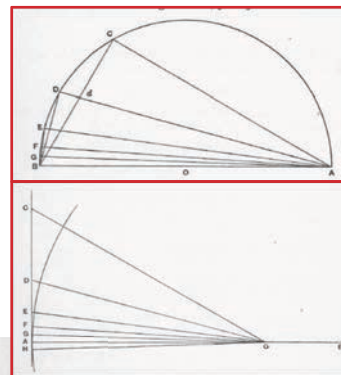
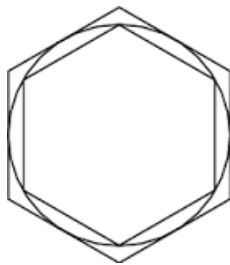
1. Measure circular objects
 - Diameter
 - Radius
 - Circumference
 - Area
2. Find ratios that seem to stay constant
3. Analyze data with graph, list, spreadsheet
4. Can capture data from geometric figure with TI-Nspire



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Archimedes' Approximation

"Method of Exhaustion" sandwiches circle between 2 regular polygons. Increasing number of sides improves approximation.



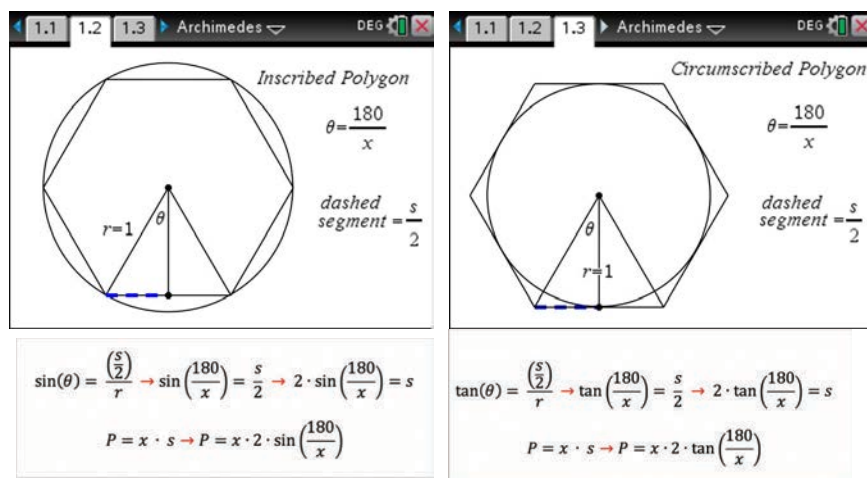
Proposition 3.

The ratio of the circumference of any circle to its diameter is less than $3\frac{1}{4}$ but greater than $3\frac{1}{7}$.



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Archimedes' Approximation, *continued...*

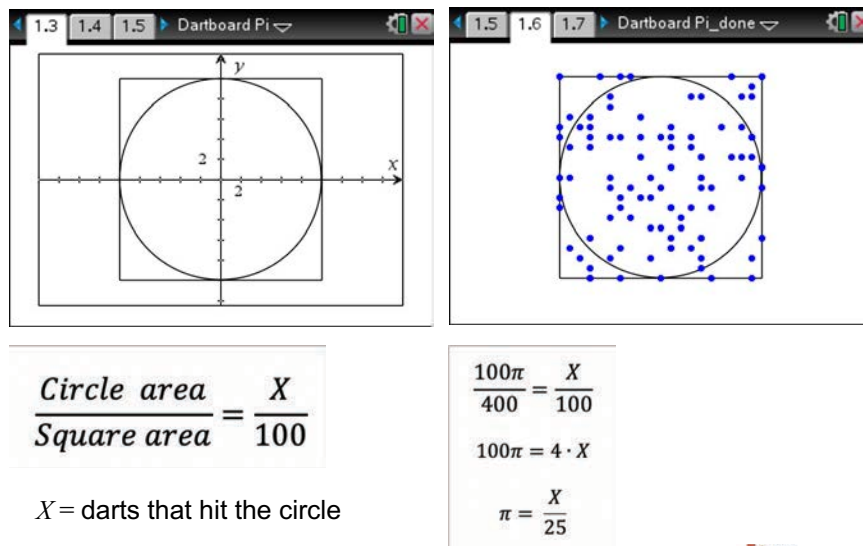


Perimeters approximate circumference = 2π , so divide by 2 for π .



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Dartboard Pi – Geometric Probability



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