

Diameter

Lawrence Mark Lesser

Geometer's
Parameter:
Iambic (yes...)
Diameter!

A circle's span
Across the round,
There is a line
So eas'ly found.

The center's pierced
By this fine line;
And that is what
Makes it confined.

Each vertex of
Triangle sits:
We know it's right
If long side is

Diameter,
So Thales claimed:
A theorem now
Does bear his name.

Diameter
That strikes a chord
At angle right
Bisects its world.

We'll find its length
If we divide
Circumference
By our friend π !

QUESTIONS:

1. What is the meaning of the prefix "di" in the word "diameter"? And, what other examples from science or mathematics can you think of that use the prefix "di" in the same way?
2. The most common form of poetic meter in English is iambic pentameter, in which each line of verse has five iambic metrical feet that each consist of one unstressed syllable followed by one stressed syllable. Therefore, in light of the answer to the previous question, what form would poetic lines in "iambic diameter" have?
3. Give a definition for a diameter of a circle. (Note that we say "a" diameter since a circle has an infinite number of them!)
4. State Thales' theorem and draw an associated picture for it. Who was Thales ("THAY-leez")?
5. How can you prove Thales' theorem?
6. If a diameter is perpendicular to a chord, what does it do to that chord? Draw a picture representing the associated theorem and see if you can find a proof.
7. For a given circle, what is the relationship between a diameter and circumference?

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