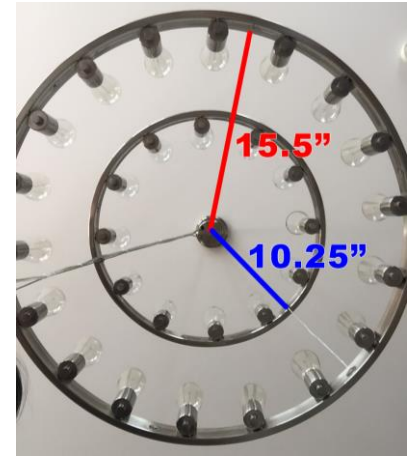


π Day Challenge!

Overstock.com had the following light fixture for sale. It requires a total of 30 lights. The **radius** of each circle is shown. Circles use a special character, π , or **Pi**, and it's value is roughly 3.14, hence Pi Day being March 14th! Some formulas are given. You may want to use scrap paper and/or look up definitions as needed. **Parents & Guardians** can participate too! No stealing your student's answers!



$$\text{Area} = \pi \cdot \text{radius}^2$$

$$\text{Circumference} = \pi \cdot \text{diameter}$$

Please use 3.14 for π

1. What is the area of the inner ring? *Round to the nearest tenth of an inch.*
2. What is the circumference of the outer ring? *Round to the nearest tenth of an inch.*
3. Which ring has a greater arc length between each light, assuming they are equally spaced? *Solve to the nearest thousandth.*
4. How much larger is it? *Round to the nearest thousandth.*

Assume a third, larger ring is added, and that the number of lights increases in a linear fashion relative to the first two rings. Also, assume that the arc length between the lights of this new ring is the same as that of the outer ring found in question 4.

5. What would the circumference of the new, largest ring be? *Round to the nearest tenth of an inch.*
6. What would the radius of the new, larger ring be? *Round to the nearest tenth of an inch.*



Students & Parents can submit answers here!!

<https://tinyurl.com/20R10Pi>