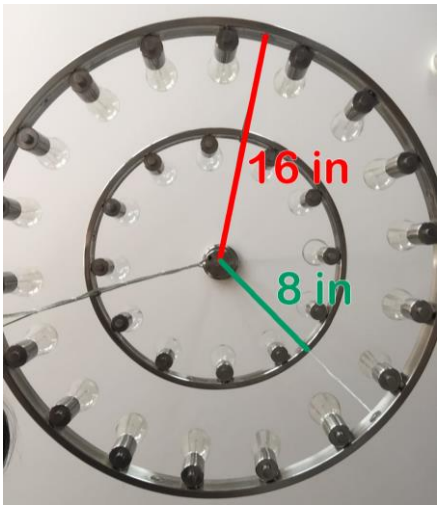
π Day Challenge!



Overstock.com had the following light fixture for sale. It requires a total of 30 lights. The ***radius*** of each circle (the distance from the center of a circle to its edge) is shown. A ***diameter*** is a line that goes across a circle, passing through the center point. A diameter is double the length of a radius. ***Circumference*** is similar to perimeter, or the distance around a circle. Circles also use a special character, ***π***, or **Pi**, and it's value is roughly 3.14, hence Pi Day being March 14th! Some formula's are shown. You may want to use scrap paper! **Parents & Guardians** can participate too! No stealing your student's answers!

$$Area = (\pi) \times (radius) \times (radius)$$

$$Circumference = (\pi) \times (diameter)$$

Please use 3.14 for π

1. What is the area of the inner ring? *Round to the hundredths place. (2 decimal places)*

2. What is the circumference of the outer ring? *Round to the tenths place. (1 decimal place)*

3. If each light bulb used is 40 watts, how many more watts is the outer ring than the inner ring?

4. Using the circumference of the outer ring (Question 2), about how far apart would each light be in inches? *Round to the hundredths place. (2 decimal places)*

Assume a third, larger ring is added, and the size of its radius follows the pattern of the first two. Also, assume that the space between each light you found in question 4.

5. How many lights would be in this new, largest ring?

Students & Parents can submit answers here!!

https://tinyurl.com/2020HBMSPi