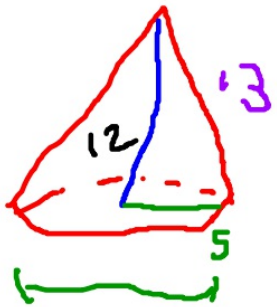
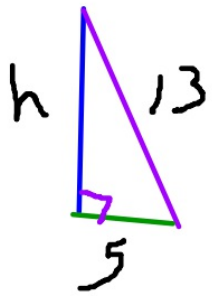
Good morning: warm up in notebooks

Find the diameter of a sphere with the same volume as a cone with base diameter 10 and slant height 13.





$5^2 + h^2 = 13^2$

$25 + h^2 = 169$

$h^2 = 144$

$h = 12$

$V_c = \frac{1}{3}\pi(5)^2 \cdot 12$ (10, 4)

$100\pi \approx 314.159\ in^3$

$= V_s = \frac{4}{3}\pi r^3$

Reminders:
tutoring today 4-5p
retakes available in DS

$SA_{cone} = \pi r l + \pi r^2$

$SA_{sphere} = 4\pi r^2$

$\frac{100}{4/3} = \frac{4}{3} r^3 \cdot \frac{3}{4}$

$\sqrt[3]{75} = \sqrt[3]{r^3}$

$4.22 = r \rightarrow D = 8.44$

EOC (End of Course) Test

- 3 subparts: 1 non-calc, 2 calc
- multiple choice, multiple select, constructed response
  CR: multi-part questions, fill in the blank, graphing, matching table, drop down menu
- same platform we used in the lab: "Questar"

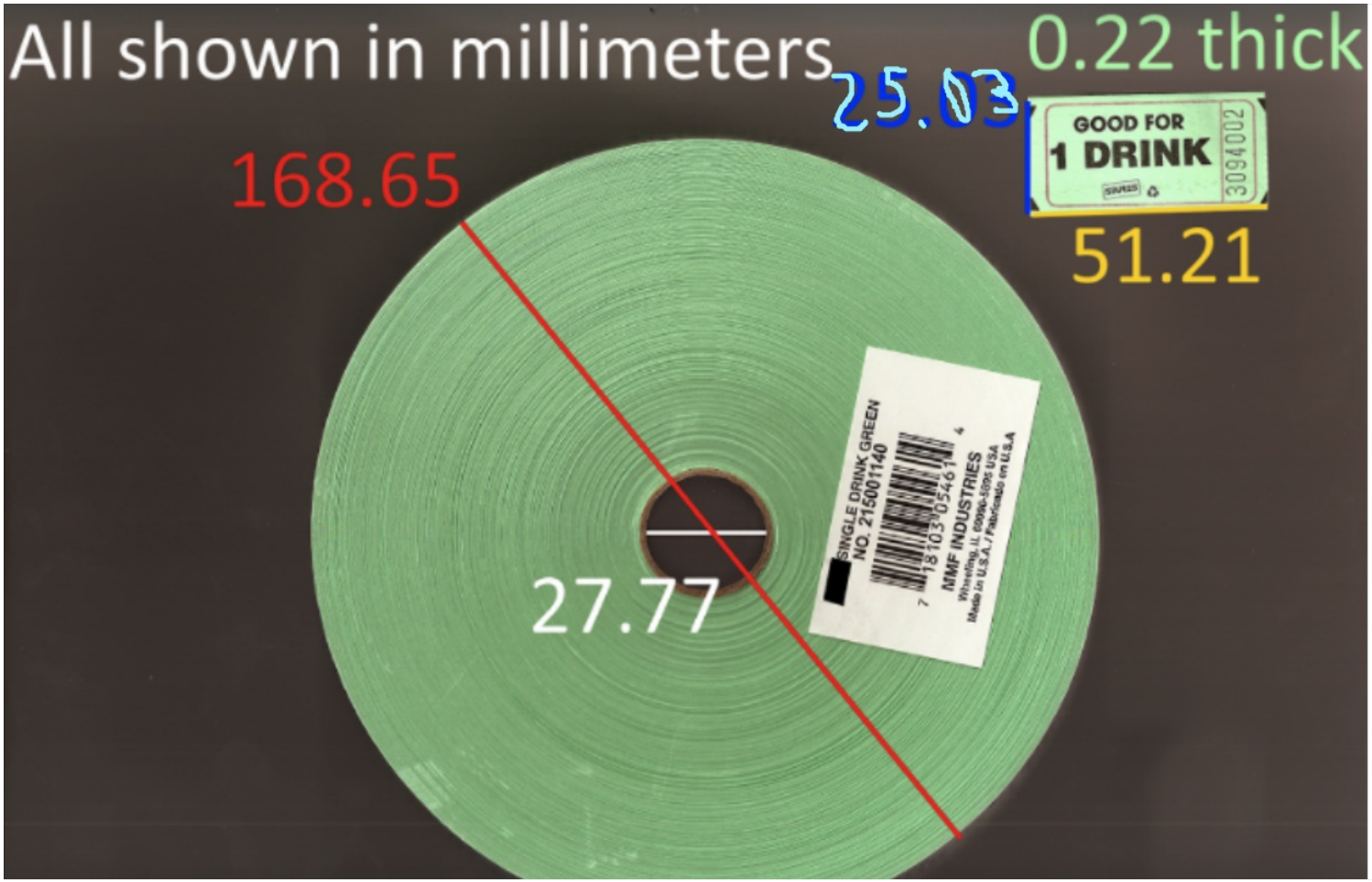
DATES:
Th Apr 26: Part 1 (no calc): 35min
M Apr 30: Part 2: 50 min (A Day)
Tu May 1: Part 3: 60 min

Geometry (G)			
	# of Items	**# of Score Points**	**% of Test**
Congruence • G.CO.A-Experiment with transformations in the plane. • ** G.CO.B-Understand congruence in terms of rigid motions. • ** G.CO.C-Prove geometric theorems. • G.CO.D-Make geometric constructions.	9–14	12–16	22–29
Triangles and Circles • ** G.SRT.A-Understand similarity in terms of similarity transformations. • **G.SRT.B-Prove theorems involving similarity. • ** G.SRT.C-Define trigonometric ratios and solve problems involving triangles. • G.C.A-Understand and apply theorems about circles. • G.C.B-Find areas of sectors of circles. • G.GPE.A-Translate between the geometric description and the equation for a circle.	16–23	21–25	38–45
Geometric Proofs and Solving Design Problems • ** G.GPE.B-Use coordinates to prove simple geometric theorems algebraically.	3–5	4–6	7–11
Two and Three Dimensional Geometry • ** G.MG.A.-Apply geometric concepts in modeling situations. • G.GMD.A-Explain volume and surface area formulas and use them to solve problems.	6–8	6–10	11–18
Problem Solving	1	4–6	7–11
Total	35–51	*50–60	100

What are the first questions that come to mind?

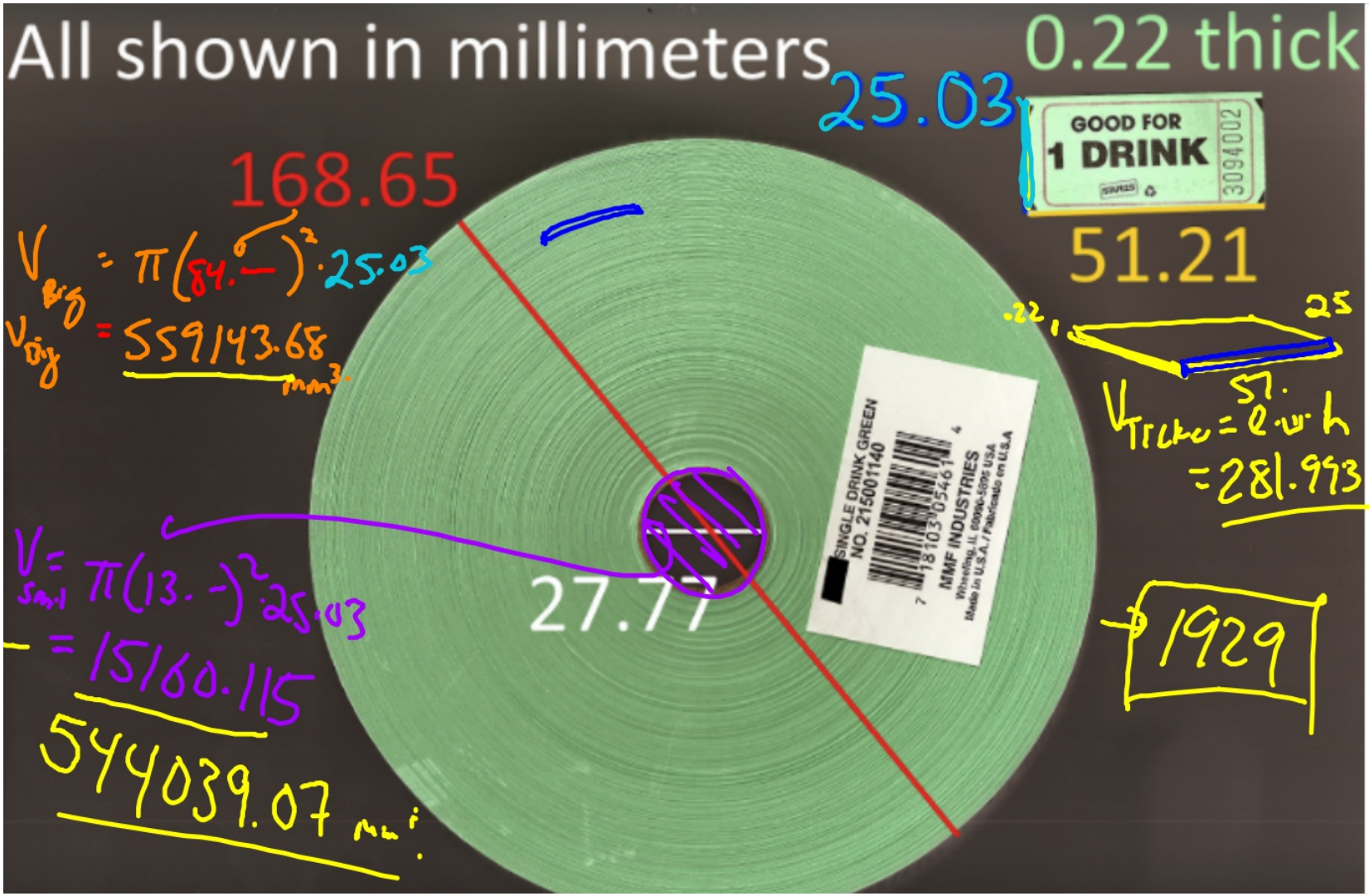
How many tickets are on the roll? Record your guess.

What do you need to know to answer this question?



Private think time

Interpret and Compare (trading papers)



Private think time

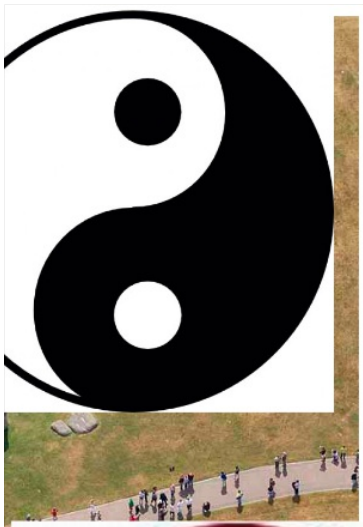
Listen and compare

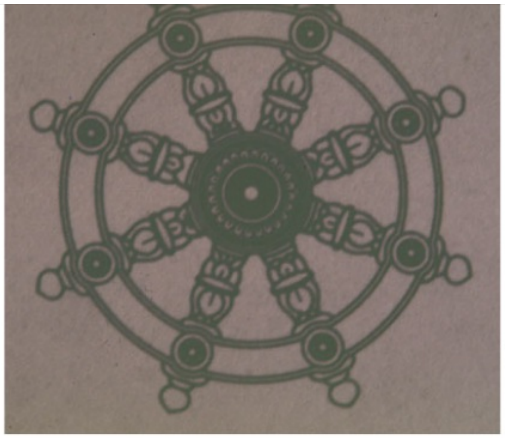
(tell what you did, go around)


2000 SINGLE DRINK GREEN
NO. 215001140
7 18103 05461 4
MMF INDUSTRIES
Wheeling, IL 60090-5895 USA
Made in U.S.A. / Fabricado en U.S.A

Circles!

What do you already know about circles?
What would you like to learn about circles?






Coca-Cola

1600 CE

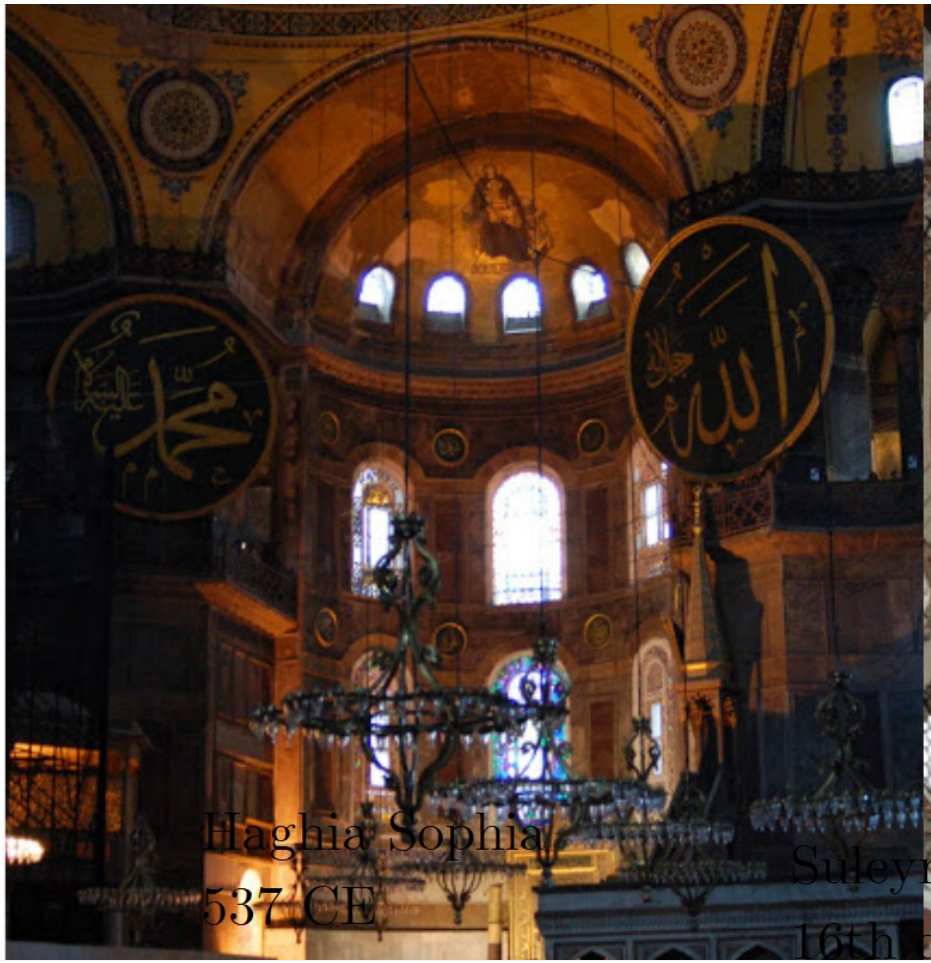
500 feet tall

75 CE

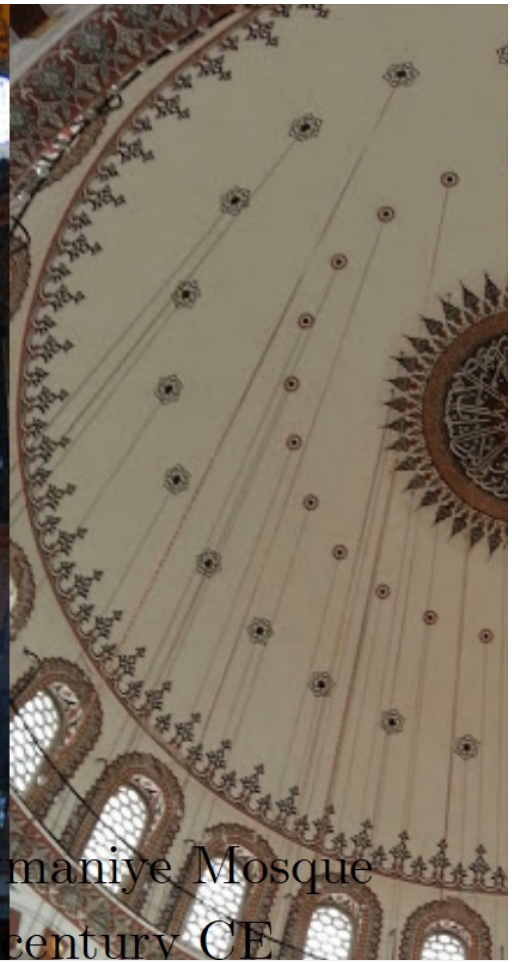
0 CE

142 ft

Chora Church,
11th century CE



Haghia Sophia
537 CE



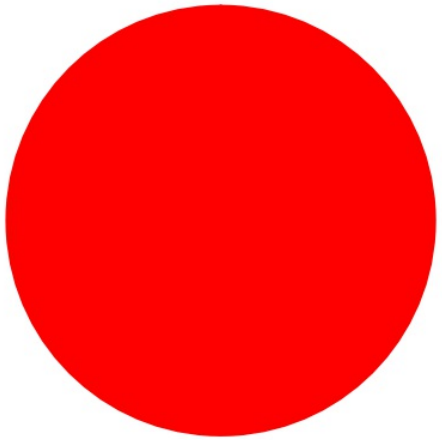
Süleymaniye Mosque
16th century CE


بسم الله الرحمن الرحيم

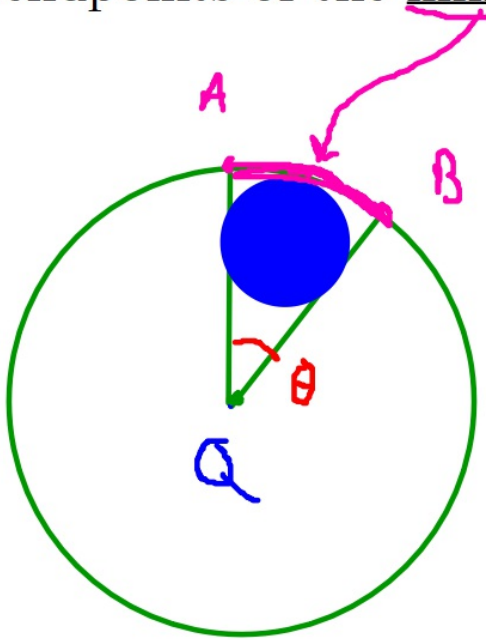
With your elbow partners:

-Why are circles so common in art history, religious beliefs, and design?

-Is a circle a shape without straight sides or one with infinitely many sides?

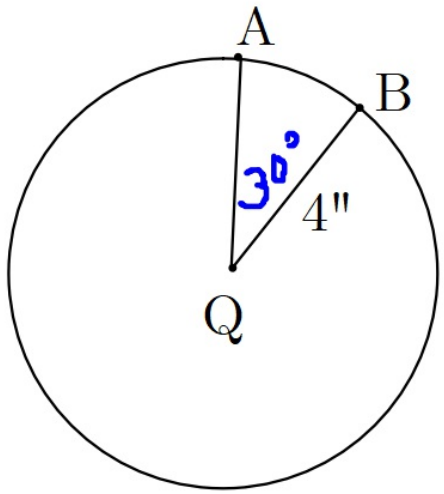


Sketch a circle with center Q and sketch a sector with a central angle of about 30°. Label the endpoints of the minor arc of the sector A and B.



Let's say the circle has a radius of 4 inches.

What is the <u>area</u> of sector AQB ?



Prop.

$$\frac{\text{part}}{\text{whole}} \quad \frac{30^\circ}{360^\circ} = \frac{x}{\pi \cdot 4^2}$$

$$\frac{30^\circ}{360^\circ} \times \frac{x}{16\pi}$$

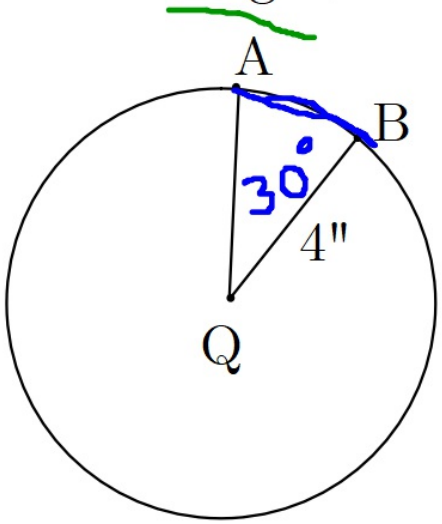
$$360x = 480\pi \leftarrow$$

$$\frac{360x}{360} = \frac{480\pi}{360}$$

$$x = \frac{4}{3}\pi \text{ in}^2$$

Let's say the circle has a radius of 4 inches.

What is the length of $\overset{\frown}{AB}$?



$$\frac{30^\circ}{360^\circ} = \frac{x}{2\pi r}$$

part / whole

$$360x = 240\pi$$

$$x = \frac{2}{3}\pi \text{ in}$$

HW

p. 475-6: #7-10

(this page was previously assigned, so you may have ripped it out)

watch the video assigned Monday if you didn't 😒