

1. Create a spreadsheet that calculates the volume (space) of a cylinder using the formula

$$v = 3.14 \cdot r^2 \cdot h$$

Where v is the volume, r is the radius, and h is the height of the cylinder.

The person using the spreadsheet will have to type in the radius & height in the appropriate boxes, and the spreadsheet will calculate the volume.

The spreadsheet must be color coordinated like the one shown:

A screenshot of a spreadsheet application. The active cell is G11. The spreadsheet has a black background. The header row (row 1) has columns A, B, C, D, and E. Row 2 contains two yellow input boxes: 'What is the radius of the cylinder?' in column B and 'What is the height of the cylinder?' in column D. Row 3 contains the values '4' and '8' in columns B and D respectively. Row 6 contains a pink output box in column D that says 'The volume of the cylinder is ...' followed by the value '401.92'.

	A	B	C	D	E
1					
2		What is the radius of the cylinder?		What is the height of the cylinder?	
3		4		8	
4					
5					
6				The volume of the cylinder is ...	
7				401.92	
8					
9					
10					

2. Create a spreadsheet that calculates the volume (space) of a sphere using the formula

$$v = \frac{4}{3} \cdot \pi \cdot r^3$$

Where v is the volume, and r is the radius.

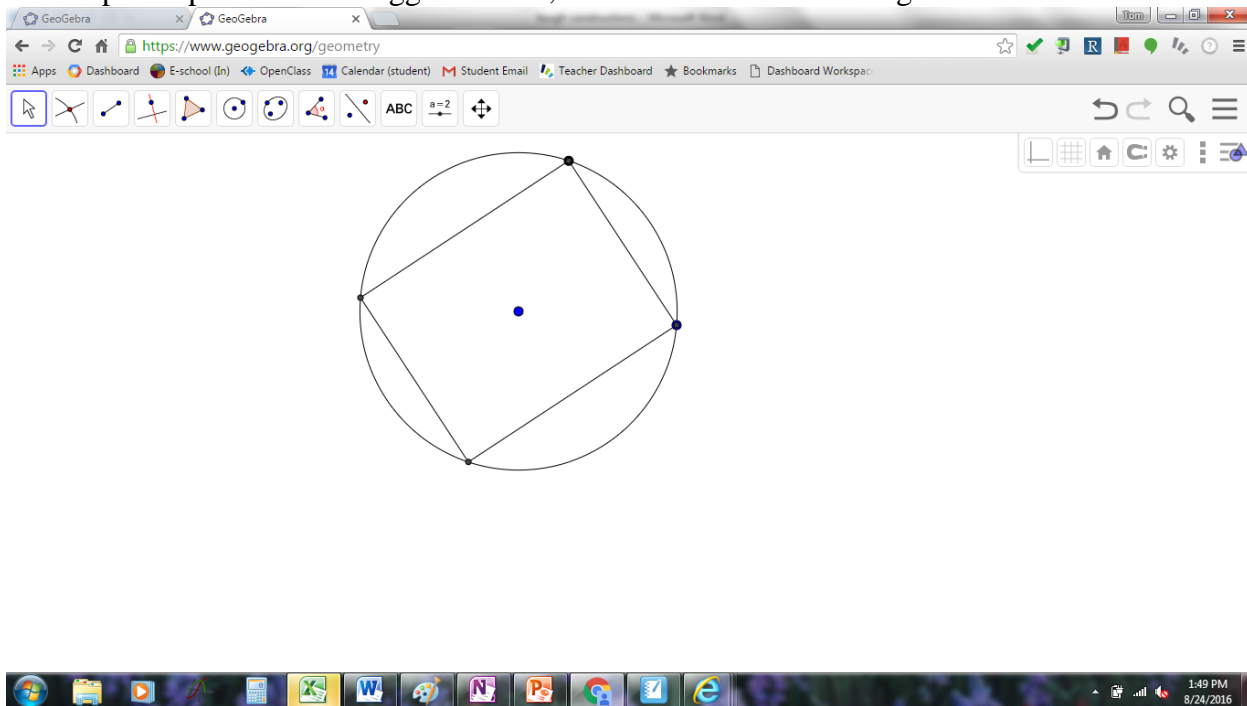
The person using the spreadsheet will have to type in the radius & can input the value for π (like 3.14 or 3.1415 or 3.14159271, etc)

A screenshot of a spreadsheet application. The active cell is H12. The spreadsheet has a black background. The header row (row 1) has columns A, B, C, D, and E. Row 2 contains two yellow input boxes: 'What is the radius of the sphere?' in column B and 'What is pi equal to?' in column D. Row 3 contains the values '6' and '3.141592' in columns B and D respectively. Row 6 contains a pink output box in column D that says 'The volume of the cylinder is ...' followed by the value '904.778496'.

	A	B	C	D	E
1					
2		What is the radius of the sphere?		What is pi equal to?	
3		6		3.141592	
4					
5					
6				The volume of the cylinder is ...	
7				904.778496	
8					
9					
10					

3. GEOGEBRA

Create a rectangle inscribed in a circle (the 4 vertices are always on the circle). So when any of the points pictured are dragged around, the 4 corners of the rectangle are still on the circle.



4. Make a square. It should be able to move and grow, but still be a square.

5. Watch this video <https://www.youtube.com/watch?v=jtlCE5uTEDM>

Try to create this image: A circle with a 90 degree “slice” (sector) that is spinning through the circle
Hint to make a “slice” you need a tool called “circular sector”

