Section 2.3 Exercises Part B

1. Using the formula for a cylinder and a calculator, fill out the following table:

radius	height	Surface Area	Volume
5	7		
14	3		
7.2	18.34		
13	2.5		
15	17		
16	33		
281	541.5		

2. If the unit for length and width in #1 is inch, what are the units for Surface Area and Volume?

3. If the unit for length and width in #1 is centimeter, what are the units for Surface Area and Volume?

4. Using the formula for a cylinder and a spreadsheet, fill out the table in #1 using the formula abilities of the spreadsheet.

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radius	Surface Area	Volume
3		
12		
5.1		
17		
4		
38		
114		

5. Using the formula for a Sphere and a calculator, fill out the following table:

6. If the unit for radius in #5 is feet, what are the units for Surface Area and Volume?

7. If the unit for radius in #1 is kilometer, what are the units for Surface Area and Volume?

8. Using the formula for a circle and a spreadsheet, fill out the table in #5 using the formula abilities of the spreadsheet.

9. Using a spreadsheet fill out the table for a savings account that has a beginning balance of \$150 and grows at 7% with an additional \$25 added at the end of each year:

year	Beginning Balance	Ending Balance
1	150	$150 \times 1.07 + 25 = 185.5$
2	185.5	$185 \times 1.07 + 25 =$
- - -	Use your calculator to make sure that the spreadsheet is calculating it correctly.	
15		

10. As a group, select a typical job that one of you anticipates having in the next five years. Then open a spreadsheet document and go through the lifelong income example in this section. How much money do you expect to earn over your lifetime?

Answers:

1.

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radius	height	Surface Area	Volume
5	7	376.99	549.78
14	3	1,495.40	1,847.26
7.2	18.34	1,155.40	2,986.86
13	2.5	1,266.06	1,327.32
15	17	3,015.93	12,016.59
16	33	4,926.02	26,540.17
281	541.5	1,452,185.50	134,326,275.61

- **2.** SA $-in^2$; V $-in^3$
- **3.** SA cm²; V cm³
- **4.** On Spreadsheet

5	
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0		
radius	Surface Area	Volume
3	113.10	113.10
12	1,809.56	7,238.23
5.1	326.85	555.65
17	3,631.68	20,579.53
4	201.06	268.08
38	18,145.84	229,847.30
114	163,312.55	6,205,877.00

- **6.** SA ft^2 ; V ft^3
- **7.** SA km^2 ; V km^3
- 8. On Spreadsheet
- **9.** At the end of 15 years you should have \$1,042.08
- **10.** Complete when everyone can do it on their own.