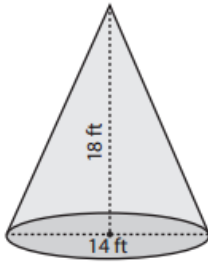


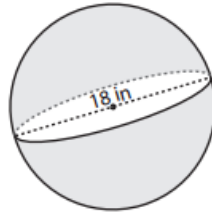
***“Commitment unlocks the doors of imagination, allows vision, and gives us the right stuff to turn our dreams into reality.” – James Womack***

1)



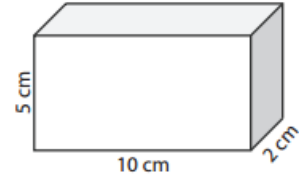
Volume = \_\_\_\_\_

2)



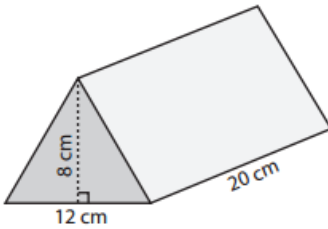
Volume = \_\_\_\_\_

3)



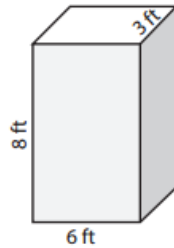
Volume = \_\_\_\_\_

4)



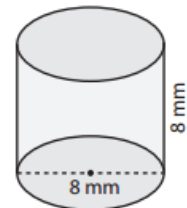
Volume = \_\_\_\_\_

5)



Volume = \_\_\_\_\_

6)



Volume = \_\_\_\_\_

Solve the following:

1.  $|4 - 3x| = 22$

Check:

2.  $|x - 5| + 3 = 8$

Check:

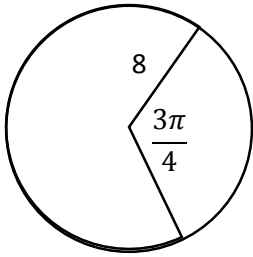
3.  $-6|4 - 4k| = 72$

Check:

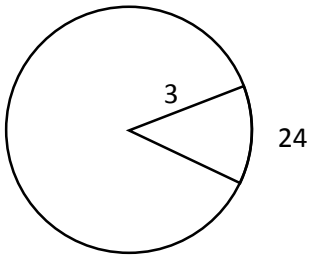
4.  $-4|b - 2| - 9 = 3$

Check:

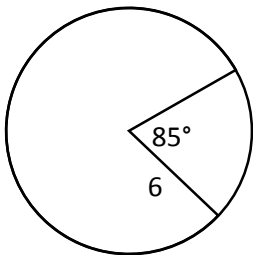
- 1) Calculate the length of the given arc when the central angle is  $\frac{3\pi}{4}$  radians and the radius is 8.



- 2) Find the central angle in radians when the arc length is 24 units and the radius is 3 units.



- 3) Find the area of the given sector with a central angle of  $85^\circ$  and a radius of 6 units.



- 4) A sprinkler rotates around in order to cover a large area of the yard. If the sprinkler head rotates around through the angle of  $270^\circ$  and has a reach of 15 feet, how much area is watered by the sprinkler?

Solve the following:

1. The value of a house appreciates at a rate of 2.5%. The house is currently valued at \$120,000. What will the value of the house be in 12 years?
2. You need to have \$500 in order to buy a new television. If you invest \$250 in an account that compounds continuously at a rate of 5% how long will it take to have the money you need?
3. The population of a city is declining by 2.5% per year. If the population is currently at 56,471, when will the population be in 50,000?
4. Your current hourly wage is \$7.50 an hour. Your hourly wage increases by 8% every quarter. What will your wage be in two years?