NAME:

Math 121 Spring 2010 K. Barnhill

Ch. 10 Test – Part I (Measurement)

Answer each of the following questions by showing all of your work. Answers without work will not be accepted. **NO WORK, NO POINTS. Good luck!**

- 1. **Perform** the following conversions. Show work as always. (7 points each)
 - (a) 40 cups to gallons

(b) 0.72 cubic meters to cubic centimeters

(c) 1.35 liters to cubic centimeters

- 1. (cont'd) Perform the following conversions. Show work as always. (7 points each)
 - (d) 1 quart to cubic inches (use 1 gallon = 231 cubic inches)

- 2. A 24-kilogram bag of birdseed is priced at \$16.88. If 75 grams of this feed is put in a bird feeder each day, (14 points)
 - (a) how many days will it be before the bag of seed is empty?

(b) **how much** (rounded to the nearest penny) does it cost to feed the birds each day?

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Ch. 10 Test – Part II

Answer each of the following questions by showing all of your work. Answers without work will not be accepted. **NO WORK, NO POINTS. Good luck!**

3. Find the **surface area** and **volume** of the right trapezoidal prism shown in below: (16 pts)



- 4. Determine if each of the following is **true or false**. If false, explain why. (10 points)
 - (a) If two polygons have the same area, then their perimeters are also equal.

(b) The circumference of a circle is approximately 3 times the radius of the circle.

(c) The volume of any prism, right or oblique, is the area of its base face times its height.

4. Find the **perimeter** and **area** of the figure shown below. Answer in exact form; do not approximate. (16 points)



5. Find the **surface area** and **volume** of a right square pyramid whose base has sides of length 12 m and whose slant height is 10 m (on all four faces). (16 points)