Chapter 1 (5570066)

Current Score: 0/99 **Due:** Thu Oct 2 2014 11:58 PM PDT

Question	1	2	3	4	5	6	7	8	9	Total
Points	0/12	0/12	0/12	0/12	0/6	0/12	0/12	0/9	0/12	0/99

1. 0/12 points UWAPreCalc1 1.P.001. [2424410]

(a) Convert 7746.66 seconds into units of hours, minutes, and seconds.

- 2 hours 9 minutes 6.66 seconds
- 9 hours 2 minutes 6.66 seconds
- 3 hours 19 minutes 5.66 seconds
- 2 hours 14 minutes 6 seconds
- 3 hours 19 minutes 5 seconds

(b) Which is faster: 60 mph or 100 ft/s?

- 60 mph
- 100 ft/s

(c) Gina's salary is 1 cent/second for a 40 hour work week. Tiare's salary is $1400 for a 40 hour work week. Who has a higher salary?

- Gina
- Tiare

(d) Suppose it takes 190 credits to get a baccalaureate degree. You accumulate credit at the rate of one credit per quarter for each hour that the class meets per week. For instance, a class that meets three hours each week of the quarter will count for three credits. In addition, suppose that you spend 2.5 hours of study outside of class for each hour in class. A quarter is 10 weeks long. How many total hours, including time spent in class and time spent studying out of class, must you invest to get a degree?

_____ hr

2. 0/12 points UWAPreCalc1 1.P.002. [2123831]

Sarah can bicycle a loop around the north part of Lake Washington in 2 hours and 40 minutes. If she could increase her average speed by 1 km/hr, it would reduce her time around the loop by 7 minutes. How many kilometers long is the loop? (Round your answer to two decimal places.)

_____ km

3. 0/12 points UWAPreCalc1 1.P.003. [2123823]

The density of lead is 11.34 g/cm^3 and the density of aluminum is 2.69 g/cm^3. Find the radius of lead and aluminum spheres each having a mass of 10 kg. (Round your answers to two decimal places.)

lead _____ cm

aluminum _____ cm

4. 0/12 points UWAPreCalc1 1.P.005. [2123826]

Marathon runners keep track of their speed using units of *pace* = minutes/mile.

(a) Lee has a speed of 18 ft/sec; what is his pace? (Round your answer to one decimal place.)
[ ] min/mi

(b) Allyson has a pace of 9 min/mile; what is her speed? (Round your answer to one decimal place.)
[ ] ft/sec

(c) Adrienne and Dave are both running a race. Adrienne has a pace of 5.8 min/mile and Dave is running 10.2 mph. Who is running faster?

- ○ Adrienne
- ○ Dave

5. 0/6 points UWAPreCalc1 1.P.007. [2309202]

Which is a better deal: a 10 inch diameter pizza for $8 or a 15 inch diameter pizza for $16?

- ○ 10 inch diameter pizza
- ○ 15 inch diameter pizza

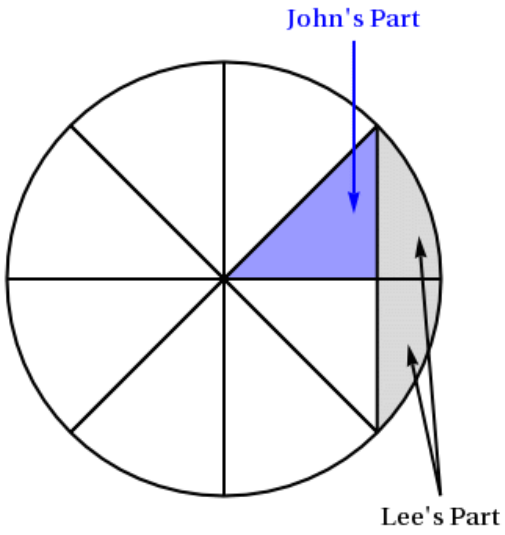
6. 0/12 points UWAPreCalc1 1.P.009. [2123844]

During a typical evening, a pizzeria receives phone orders for pizza delivery at a constant rate: 16 orders in a typical 3 minute period. How many pies are sold in 3 hours?
[ ] pies

Assume the pizzeria starts taking orders at 5:00 PM and the profit is a constant rate of $11 on 10 orders. When will phone order profit exceed $1,000? (Round your answer to the nearest minute.)
[ ] : [ ] PM

7. 0/12 points UWAPreCalc1 1.P.010. [2123821]

Aleko's Pizza has delivered a beautiful 14 inch diameter pie to Lee's dorm room. The pie is sliced into 8 equal sized pieces, but Lee is such a non-conformist he cuts off an edge as pictured. John then takes one of the remaining triangular slices.



Who has more pizza?

- ○ John
- ○ Lee

By how much? (Round your answer to two decimal places.)

[ ] in^2

8. 0/9 points UWAPreCalc1 1.P.012. [2125376]

A water pipe mounted to the ceiling has a leak and is dripping onto the floor below, creating a circular puddle of water. The area of the circular puddle is increasing at a constant rate of 11 cm^2/hour.

(a) Find the area and radius of the puddle after 1 minute, 98 minutes, 4 hours, and 1 day. (Round your answers to four decimal places as needed.)

area after 1 minute	[ ]	cm^2
radius after 1 minute	[ ]	cm
area after 98 minutes	[ ]	cm^2
radius after 98 minutes	[ ]	cm
area after 4 hours	[ ]	cm^2
radius after 4 hours	[ ]	cm
area after 1 day	[ ]	cm^2
radius after 1 day	[ ]	cm

(b) Is the radius of the puddle increasing at a constant rate?

- ○ Yes
- ○ No

9. 0/12 points UWAPreCalc1 1.P.014. [2123789]

Dave has inherited an apple orchard on which 60 trees are planted. Under these conditions, each tree yields 14 bushels of apples. According to the local WSU extension agent, each time Dave removes a tree the yield per tree will go up 0.45 bushels. Let x be the number of trees in the orchard and N the yield per tree.

(a) Find a formula for N in terms of the unknown x. (Hint: Make a table of data with one column representing various values of x and the other column the corresponding values of N. After you complete the first few rows of the table, you need to discover the pattern.)

(b) What possible reason(s) might explain why the yield goes up when you remove trees?

Assignment Details