

Current Score: 0/75 Due: Tue Jan 13 2015 11:58 PM PST

Question	1	2	3	4	5	6	7	Total
Points	0/12	0/12	0/12	0/6	0/12	0/9	0/12	0/75

1. 0/12 points

UWAPreCalc1 1.P.002. [2123831]

Sarah can bicycle a loop around the north part of Lake Washington in 2 hours and 50 minutes. If she could increase her average speed by 1 km/hr, it would reduce her time around the loop by 6 minutes. How many kilometers long is the loop? (Round your answer to two decimal places.)

 km

2. 0/12 points

UWAPreCalc1 1.P.003. [2123823]

The density of lead is  $11.34 \text{ g/cm}^3$  and the density of aluminum is  $2.69 \text{ g/cm}^3$ . Find the radius of lead and aluminum spheres each having a mass of 30 kg. (Round your answers to two decimal places.)

lead  cmaluminum  cm

3. 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 19 ft/sec; what is his pace? (Round your answer to one decimal place.)

 min/mi

(b) Allyson has a pace of 8 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 5.2 min/mile and Dave is running 10.4 mph. Who is running faster?

 Adrienne

 Dave

4. 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

5. 0/12 points

UWAPreCalc1 1.P.009. [2123844]

During a typical evening, a pizzeria receives phone orders for pizza delivery at a constant rate: 18 orders in a typical 4 minute period. How many pies are sold in 4 hours?

 pies

Assume the pizzeria starts taking orders at 4:00 PM and the profit is a constant rate of \$12 on 10 orders. When will phone order profit exceed \$1,000? (Round your answer to the nearest minute.)

 :  PM

6. 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  $13 \text{ cm}^2/\text{hour}$ .

(a) Find the area and radius of the puddle after 1 minute, 98 minutes, 5 hours, and 1 day. (Round your answers to four decimal places as needed.)

area after 1 minute	<input type="text"/>	$\text{cm}^2$
radius after 1 minute	<input type="text"/>	cm
area after 98 minutes	<input type="text"/>	$\text{cm}^2$
radius after 98 minutes	<input type="text"/>	cm
area after 5 hours	<input type="text"/>	$\text{cm}^2$
radius after 5 hours	<input type="text"/>	cm
area after 1 day	<input type="text"/>	$\text{cm}^2$
radius after 1 day	<input type="text"/>	cm

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

- Yes
- No

7. 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 10 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