Chapter 1 (8415643)

Due: Thu Oct 6 2016 11:58 PM PDT

Question | 1 | 2 | 3 | 4 | 5 | 6 | 7

---

1. Question Details 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 6 minutes. How many kilometers long is the loop? (Round your answer to two decimal places.)

[ ] km

2. Question Details 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

---

3. Question Details 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 5.9 min/mile and Dave is running 10.4 mph. Who is running faster?

- ○ Adrienne
- ○ Dave

---

4. Question Details UWAPreCalc1 1.P.007. [2309202]

Which is a better deal: a 10 inch diameter pizza for $8 or a 12 inch diameter pizza for $15?

- ○ 10 inch diameter pizza
- ○ 12 inch diameter pizza

---

5. Question Details 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

6. Question Details 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, 92 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 92 minutes		cm^2
radius after 92 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

7. Question Details 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