

Review Homework: Week 3 Homework

Score: 0 of 1 pt

2.A.43

Find a conversion factor between square feet and square miles. Write it in three forms.

Complete the conversion factor below.

square feet = 1 square mile

This question has not been completed.



Review Homework: Week 3 Homework

Score: 0 of 1 pt

2.B.65

A solution consisting of 234 mg of dopamine in 72 mL of solution is administered at a rate of 8 mL/hr. Complete parts (a) and (b) below.

a. What is the flow rate in mg of dopamine per hour?

mg/hr (Type an integer or decimal rounded to the nearest thousandth as needed.)

This question has not been completed.



MTH/215T: Quantitative Reasoning I (40)

Review Homework: Week 3 Homework

Score: 0 of 1 pt

◀ 4 of 18 ▼ ▶

2.B.67

A doctor administers a drug to a 32-kg patient, using a dosage formula of 46 mg/kg/day. Assume that the drug is available in a 300 mg per 5 mL suspension or in 500 mg tablets.

- How many tablets should a 32-kg patient take every four hours?
- The suspension with a drop factor of 10 gtt/mL delivers the drug intravenously to the patient over a twelve-hour period. What flow rate should be used in units of gtt/hr?

- The patient should take pills every four hours.
(Type an integer or decimal rounded to the nearest hundredth as needed.)

Review Homework: Week 3 Homework

Close

Score: 0 of 1 pt

5 of 18

HW Score: 11.11%, 2 of 18 pts

2.8.75

Question Help

Solar (photovoltaic) cells convert sunlight directly into electricity. If solar cells were 100% efficient, they would generate about 1000 watts of power per square meter of surface area when exposed to direct sunlight. With lower efficiency, they generate proportionally less power. For example, 10% efficient cells generate 100 watts of power in direct sunlight. Suppose you want to supply 1 kilowatt of power to a house by putting solar panels on its roof. For solar cells with the average power of 46 watts per square meter of solar panels, how many square meters of solar panels would you need? Assume you can make use of the average power from the solar cells (i.e., for example, storing energy in batteries until it is needed).

You would need square meters of solar panels.
(Round to the nearest integer as needed.)

This question has not been completed.

Navigation icons: back, forward, search, etc.

Review Homework: Week 3 Homework

Score: 0 of 1 pt

◀ 6 of 18 ▶

2.B.77

Question

A certain region currently has wind farms capable of generating a total of 2300 megawatts (2.3 gigawatts) of power. Complete parts (a) and (b) below.

a. Assuming wind farms typically generate 35% of their capacity, how much energy, in kilowatt-hours, can the region's wind farms generate in one year? Given that the average household in the region uses about 10,000 kilowatt-hours of energy each year, how many households can be powered by these wind farms?

The wind farms can generate kilowatt-hours in one year.

(Simplify your answer.)

This question has not been completed.



Review Homework: Week 3 Homework

Score: 0 of 1 pt

9 of 18

2.C.12

Suppose that 8 turns of a wire are wrapped around a pipe with a length of 60 inches and a circumference of 4 inches, so that the wire reaches from the bottom of the pipe to the top. What is the length of the wire? (Hint: Picture cutting the pipe along its length and pressing it flat.)

The wire is inches long.

This question has not been completed.



MTH/215T: Quantitative Reasoning I (40)

Review Homework: Week 3 Homework

Score: 0 of 1 pt

◀ 10 of 18 ▶

2.C.18

A stereo system is being installed in a room with a rectangular floor measuring 19 feet by 16 feet and a 12-foot ceiling. The stereo amplifier is on the floor in one corner of the room. A speaker is at the ceiling in the opposite corner of the room. What is the shortest length of wire you can use for the connection? (Hint: Turn the problem into an equivalent simpler problem by imagining cutting the room along its vertical corners as shown.)

The shortest length of wire that can be used is ft.
(Round to one decimal place as needed.)

This question has not been completed.



Review Homework: Week 3 Homework

Score: 0 of 1 pt

11 of 18

3.A.37-BR

Compare A and B in three ways, where A = 51,687 is the number of deaths due to a deadly disease in the United States in 2005 and B = 17,607 is the number of deaths due to the same disease in the United States in 2009.

- a. Find the ratio of A to B.
- b. Find the ratio of B to A.
- c. Complete the sentence: A is ____ percent of B.

a. The ratio of A to B is .
(Type an integer or decimal rounded to two decimal places as needed.)

This question has not been completed.



MTH/215T: Quantitative Reasoning I (40)

Review Homework: Week 3 Homework

Score: 0 of 1 pt

12 of 18

3.A.39-BR

Compare A and B in three ways, where A = 1.7 million is the 2012 population of city X and B = 2.3 million is the 2012 population of city Y.

- Find the ratio of A to B.
- Find the ratio of B to A.
- Complete the sentence: A is _____ percent of B.

a. The ratio of A to B is .

(Type an integer or decimal rounded to two decimal places as needed.)

This question has not been completed.



Review Homework: Week 3 Homework

Score: 0 of 1 pt

3.A.43

Express the first number as a percentage of the second number.

25 pounds of recyclable trash in a barrel of 52 pounds of trash

The 25 pounds of recyclable trash is % of the barrel of 52 pounds of trash.
(Round to the nearest tenth as needed.)

This question has not been completed.





Review Homework: Week 3 Homework

Score: 0 of 1 pt

14 of 18

3.A.45

In the following statement, express the first number as a percentage of the second number.

The full-time year-round median salary for U.S. men in 2010 was \$42,000, and the full-time year-round salary for U.S. women in 2010 was \$34,200.

The full-time year-round median salary for U.S. men in 2010 was % of the full-time year-round median salary for U.S. women in 2010.
(Round to the nearest tenth as needed.)

This question has not been completed.



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Score: 0 of 1 pt

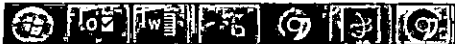
16 of 18

3.A.77

Between 2000 and 2010, the percentage of households with cordless phones increased by 14.1% to 94%. What percentage of households had cordless phones in 2000?

About % of households had cordless phones in 2000.
(Round to the nearest integer as needed.)

This question has not been completed.



Review Homework: Week 3 Homework

Score: 0 of 1 pt

18 of 18

3.A.103

Answer the question about the following quote from a news source.

"The unemployment rate has risen more than a percentage point to 8.5% in February from 7.4% last November." What is the relative change in the unemployment rate expressed as a percentage?

The unemployment rate has risen %.

(Type an integer or decimal rounded to the nearest tenth as needed.)

This question has not been completed.



