

Student: _____
Date: _____
Time: _____

Instructor: courtney trabue
Course: GMC LSS Mathematics
Book: Martin-Gay: Developmental
Mathematics

Assignment: MAT 097 Formulas and
Problem Solving (95)

1. Substitute the given values into the formula, and solve for the unknown variable.

$$A = bh \quad A = 80, h = 10$$

$$b = \square$$

2. Substitute the given values into the formula, and solve for the unknown variable.

$$A = \frac{1}{2}h(B + b); \quad A = 150, B = 8, b = 7$$

$$h = \square$$

3. Solve the formula for the specified variable.

$$V = XRU \text{ for } X$$

$$X = \square$$

4. Solve $I = PRT$ for P .

$$P = \square$$

5. Solve the formula for the specified variable.

$$A = P + PRT \text{ for } T$$

$$T = \square$$

6. Solve the formula for the specified variable.

$$D = \frac{1}{3}fk \text{ for } f$$

$$f = \square$$

7. Convert 140° Fahrenheit to Celsius.

$$140^\circ \text{ F} = \square^\circ \text{ C}$$

8. The length of a rectangular parking lot is 6 meters less than twice its width, and the perimeter is 396 meters, find the length of the parking lot.

$$L = \square \text{ meters}$$

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9. A flower bed is in the shape of a triangle with one side twice the length of the shortest side, and the third

a = ft (shortest side)

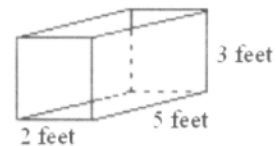
b = ft (second side)

c = ft (third side)

10. Lakeview is 114 miles from Springfield. Irania must go to the law library in Springfield to get a document for the law firm for which she works. Find how long it takes her to drive round-trip if she averages 42 mph.

The round-trip from Lakeview to Springfield takes approximately hours.
(Type an integer, proper fraction, or mixed number.)

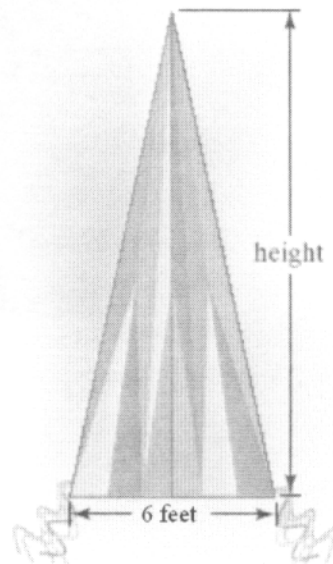
11. A certain species of fish require 1.5 cubic feet of water per fish to maintain a healthy environment. Find the maximum number of fish you could put in a tank measuring 5 feet by 2 feet by 3 feet.



fish

12. If the area of a triangular kite is 21 square feet and its base is 6 feet, find the height of the kite.

The height of the kite is feet.
(Simplify your answer.)



13. Lombardi's pizza sells one 14-inch cheese pizza or two 9-inch cheese pizzas for \$12.99. Determine which size gives more pizza.

- the 14-inch pizza
 the 9-inch pizzas

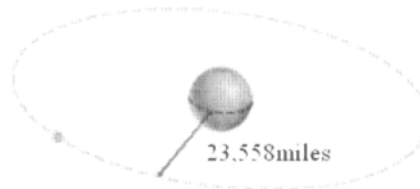
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14. Scientists would like to place an artificial satellite into orbit at a height of 23,558 miles directly above the Earth's equator. Recall that the radius of the Earth is approximately 4000 miles.

Use the formula for the circumference of a circle to find the length of the satellite's orbit.



The length of the satellite's orbit is miles.
(Round to the nearest whole number.)

15. Find how long it takes Collin Jonesto drive 330 miles on I-60 if he merges onto I-60 at 3 pm and drives nonstop with his cruise control set on 55 mph.

$t =$ hours