

TRIANGLE SOLUTIONS

**OSCAR makes math friendly
for your practical applications.**



How much lumber or paint should you buy for a triangular deck or the gable of your house? How can you calculate the distance to a faraway object? OSCAR and Triangle Solutions quickly find the answers for you.

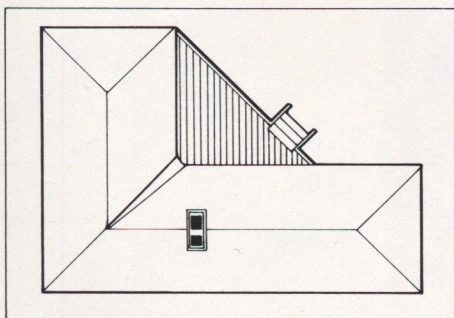


TRIANGLE SOLUTIONS

KNOW YOUR TRIANGLES

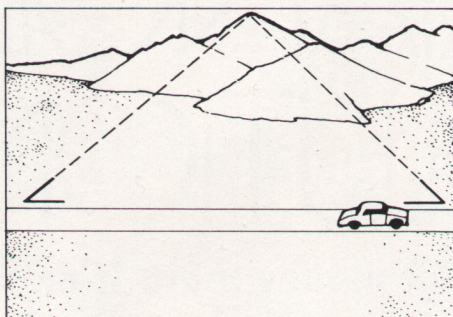
Triangles have been important to the understanding of science and mathematics for many centuries. Trigonometry is the study of the sides and angles formed by triangles. Most of our modern machines and buildings could not be built without the ability trigonometry gives us to "solve triangles."

But, as you may remember from your high school trigonometry class, figuring out how long the side of a triangle is from just two of the angles plus one of the other sides can be a painstaking, error-prone calculation. Not with *Scienceware's™* exercise in *Triangle Solutions™*. The program gives you instant answers to triangle problems that took earlier mathematicians hours to solve. But while 19th-century scholars may have taken joy in solving triangles, is the skill ever of any use to you? Read on.



Building a Deck

■ Let's say you want to build a triangular outdoor deck. You'll need to know the square footage so you can figure out how much lumber to buy and the angles of the sides to tell you how to cut the lumber. With *Triangle Solutions™*, all you do is measure the three sides on your plan, press option Number 1, and you'll have your answer in seconds.



Measuring Distance

■ While checking some potential real estate for your vacation home, you decide to determine how far it is to a distant mountain top from building lots. There is a quick way to find out with a protractor and your car. Find a road that runs straight along the mountains. Stop your car, and fix on a distinguishing outcropping on the top of the mountain. Draw a line in the dirt that points to it and another that parallels the road. Measure the angle of the two lines with the protractor. Then drive a few miles, carefully measuring the distance on your odometer. Stop your car at some point. Take another sighting of the same outcropping, draw two lines in the dirt again, and measure the angle in the same way. With this data, you can use *Triangle Solutions™* when you return home to closely estimate how far away the mountains are.

A few other examples of applications where you can use *Triangle Solutions™* include: 1) calculating the paint needed for a gable; 2) estimating the length of a guy wire on a TV antenna tower; 3) measuring the distance across a ravine or river you can't easily cross.

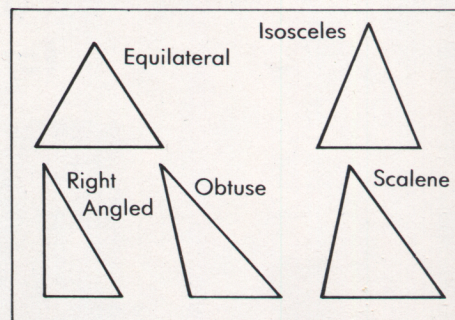
Remember that to solve triangles you need three pieces of information, as did the ancients:

- 1) Side-side-side;
- 2) Side-angle-side, or;
- 3) Angle-side-angle.

Be sure to enter all your figures in

the same unit of measurement: all feet, all yards and so on. Use decimals instead of mixing feet and inches — 12.5 feet, for example, instead of 12 feet, 6 inches, or 12½ feet. Do not use more than four digits in a number. Accuracy is to the second decimal.

Types of Triangles



Equilateral Triangle: All sides are equal.

Isosceles Triangle: Having two equal sides.

Right Triangle: Contains an angle of 90 degrees.

Obtuse Triangle: Contains an angle larger than 90 degrees.

Scalene Triangle: Having three unequal sides.

Program Instructions

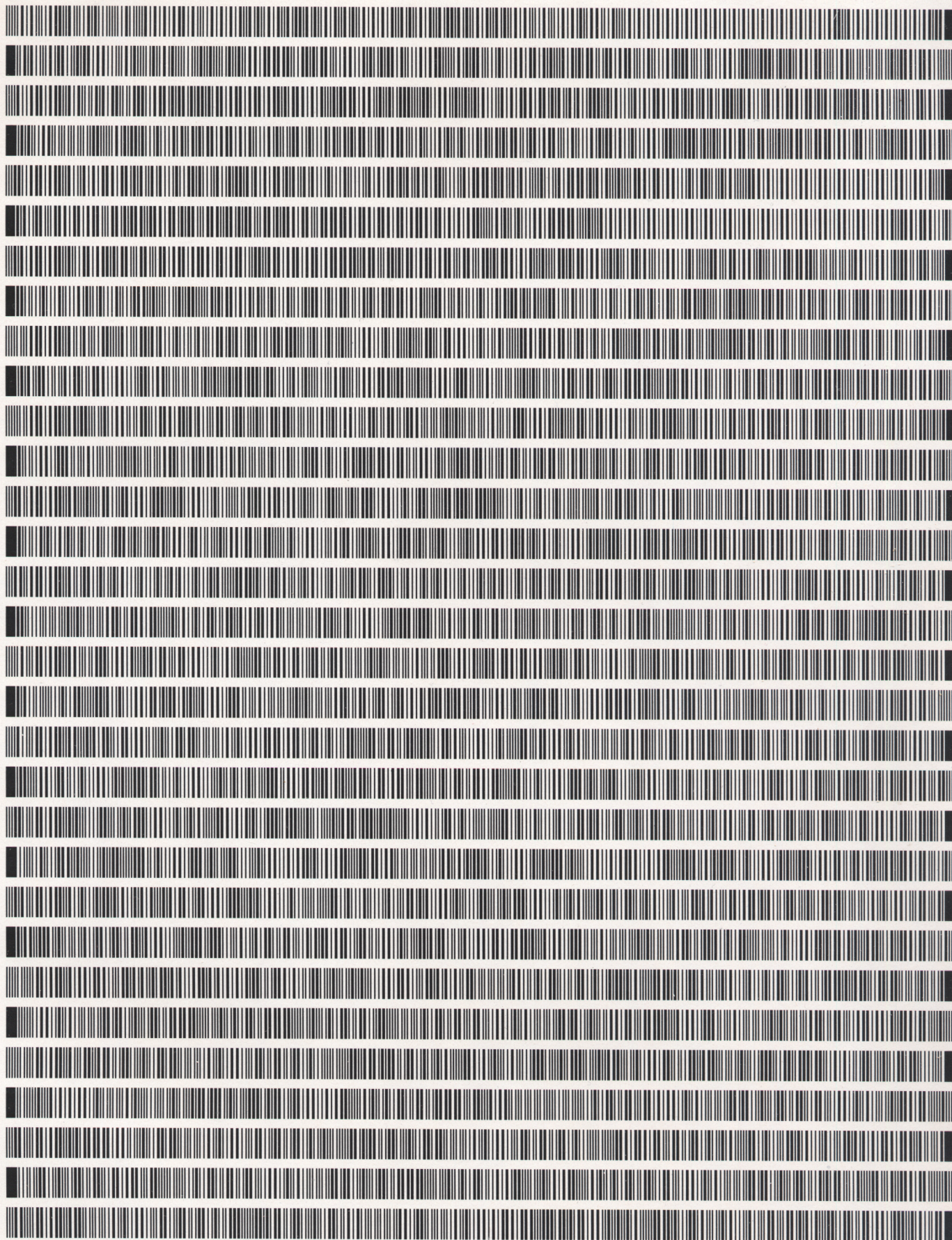
■ Load the program into your computer with OSCAR. Then type "RUN." (Refer to your User's Manual if you have difficulties.)

■ Pick the option that applies to the information you have available. You do not need to press RETURN or ENTER.

■ Enter your information as the computer asks for it. After you enter each figure, hit RETURN or ENTER.

■ When the computer fills in the missing sides or angles, press any key and the program will give you the area of the triangle.

■ Hit "Y" (yes) to figure another triangle.





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