Solving Trig with a Calculator

You’ve learned how to set up and simplify trig equations with the goal of determining the measure of a side or an angle. At this point, your answers look something like this:

|  |  |  |
| --- | --- | --- |
|  |  | *Which, when solved for x is:* |

The final step to solving trig problems is learning how to translate these answers into numbers. **If you’re using a calculator**, you can simply plug in your solution and push “=”. However, there are a few things you need to check on your calculator first.

 1) Make sure it is set on **DEGREE** mode.

 If the display says, “RAD” or “GRAD,” you have to

 switch it to “DEG” before getting started.

 2) Test how your calculator functions. Is it a more advanced calculator that allows you to type in the

 problem as written, or do you have to type it in in reverse order?

 TEST: Type =

 **If it displays 0.4040..,** then you can type in the problems as written.

  **If it displays 22**, then clear your calculator and try typing 22tan=. Now, if you get 0.4040…,

 then that means your calculator needs you to type the trig pieces of the solution backwards.

Calculating a problem on the more advanced calculators:

*Parentheses are your friends, they keep your calculator from misunderstanding you. Don’t be afraid to use them.*

Calculating a problem *without* an advanced calculator:

**Evaluate *x*. Round your answer to the nearest tenth (one decimal place).**

|  |  |  |  |
| --- | --- | --- | --- |
| **EXAMPLE**Type in:orDisplay reads: 1.25…1.25 rounds up to  | **EXAMPLE**Type in:orDisplay reads: 14.30…14.30 doesn’t round up, so the answer is  | **EXAMPLE**Type in:orororDisplay reads: 41.81…41.81 doesn’t round up, so the answer is  | **EXAMPLE**Type in:orororDisplay reads: 7.37…7.37 rounds up to  |
|  |  |  |  |

**Use a trigonometry equation to evaluate *x*. Round your answer to the nearest tenth.**

|  |  |  |
| --- | --- | --- |
| 5.  | 6.  | 7.  |
| 8.  | 9.  | 10.  |
| 11.  | 12.  | 13.  |
| 14.  | 15.  | 16.  |