

EVALUATE FORMULAS FOR GIVEN INPUT VALUES IN ORDER TO CALCULATE CIRCUMFERENCE, AREA, VOLUME, DISTANCE, AND TEMPERATURE

What Is Evaluating Formulas for Given Input Values?

- There are a variety of formulas for calculating measurements, for instance, the formula for calculating the area of a rectangle is length times width or $A = l \times w$.
- The formulas contain places for inputting numbers
 - The circumference of a circle $\rightarrow C = \pi \times d$
 - The area of a rectangle $\rightarrow A = l \times w$
 - The volume of a rectangle $\rightarrow V = l \times w \times h$

- Evaluate
perform



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How to evaluate
area, volume

umference,

- Begin by choosing the formula:
 - Circumference of a circle $\rightarrow \pi \times D$ ($\pi = 3.14$)
 - Area of a rectangle $\rightarrow l \times w$
 - Area of a triangle $\rightarrow \frac{1}{2} b \times h$
 - Volume of rectangular solid $\rightarrow l \times w \times h$

- Input the values and perform the operation
 - **Circumference of a circle** → $\pi * D$ ($\pi = 3.14$ and $D = 8$ in)
 - $C = 3.14 \times 8 = 25.12$ in
 - **Area of a rectangle** → $l \times w$ ($l = 4$ in and $w = 7$ in)
 - $A = 4 \times 7 = 28$ sq. in
 - **Area of a triangle** → $\frac{1}{2} b \times h$ ($b = 6$ inches and $h = 12$ in)
 - $A = \frac{1}{2} (6 \times 12) = 36$
 - **Volume of rectangular solid** → $l \times w \times h$
($l = 2$ cm, $w = 6$ cm, $h = 4$ cm)



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- **Temperature** is measured in degrees Fahrenheit or Celsius. A thermometer can be used to determine the temperature.
 - Water freezes at 32° F and boils at 212°
 - Water freezes at 0° C and boils at 100°
- **Distances** can be measured in standard measure: inches, feet, yards, miles or in metric measure: millimeters, centimeters, meters, kilometers
 - 12 in = 1 foot
 - 3 ft = 1 yd
 - 5280 ft = 1 mile
 - 1000 mm = 1 m
 - 100 cm = 1 m
 - 1000 m = 1 km
- The formulas for measuring are used correctly by inputting the known values and completing the operations.

Try This!

What is the circumference of a circle with a diameter of 23?

What is the area of a rectangle with a length of 12 and a width of 9?

What is the volume of a rectangular solid which measures 4cm by 8cm by 12cm? _____

Would water freeze if the temperature was 45° F?

Would water



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Which is longer a line 600cm or a line 2m? _____