Practice exercises for expressions   Help Center

Solve each of the practice exercises below. Each problem includes two CodeSkulptor links: one for a template that you should use as a starting point for your solution and our solution to the exercise.

1. There are 5280 feet in a mile. Write a Python statement that calculates and prints the number of feet in 13 miles.

   Miles to feet template
   Miles to feet solution
   Miles to feet (Checker)

2. Write a Python statement that calculates and prints the number of seconds in 7 hours, 21 minutes and 37 seconds.

   Hours to seconds template
   Hours to seconds solution
   Hours to seconds (Checker)

3. The perimeter of a rectangle is $2w + 2h$, where w and h are the lengths of its sides. Write a Python statement that calculates and prints the length in inches of the perimeter of a rectangle with sides of length 4 and 7 inches.

   Perimeter of rectangle template
   Perimeter of rectangle solution
   Perimeter of rectangle (Checker)

4. The area of a rectangle is wh, where w and h are the lengths of its sides. Note that the multiplication operation is not shown explicitly in this formula. This is standard practice in mathematics, but not in programming. Write a Python statement that calculates and prints the area in square inches of a rectangle with sides of length 4 and 7 inches.

   Area of rectangle template
   Area of rectangle solution
   Area of rectangle (Checker)

5. The circumference of a circle is $2\pi r$ where r is the radius of the circle. Write a Python statement that calculates and prints the circumference in inches of a circle whose radius is 8 inches. Assume that the constant $\pi = 3.14$.

   Circumference of circle template
   Circumference of circle solution
   Circumference of circle (Checker)

6. The area of a circle is πr^2 where r is the radius of the circle. (The raised 2 in the formula is an

exponent.) Write a Python statement that calculates and prints the area in square inches of a circle whose radius is 8 inches. Assume that the constant $\pi = 3.14$.

Area of circle template
Area of circle solution
Area of circle (Checker)

7. Given p dollars, the future value of this money when compounded yearly at a rate of r percent interest for y years is $p(1 + 0.01r)^y$. Write a Python statement that calculates and prints the value of 1000 dollars compounded at 7 percent interest for 10 years.

Future value template
Future value solution
Future value (Checker)

8. Write a single Python statement that combines the three strings `"My name is"`, `"Joe"` and `"Warren"` (plus a couple of other small strings) into one larger string `"My name is Joe Warren."` and prints the result.

Name tag template
Name tag solution
Name tag (Checker)

9. Write a Python expression that combines the string `"Joe Warren is 52 years old."` from the string `"Joe Warren"` and the number 52 and then prints the result (Hint: Use the function `str` to convert the number into a string.)

Name and age template
Name and age solution
Name and age (Checker)

10. The distance between two points $(x0, y0)$ and $(x1, y1)$ is $\sqrt{(x0 - x1)^2 + (y0 - y1)^2}$. Write a Python statement that calculates and prints the distance between the points $(2, 2)$ and $(5, 6)$.

Point distance template
Point distance solution
Point distance (Checker)

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