Introduction to Computer Programming

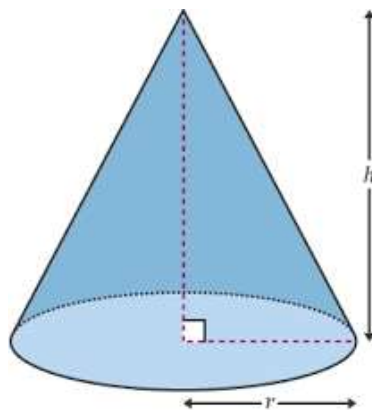## 1.2 Variables

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In-class Demos

Example 1: Find the volume of a cone.

Base radius = 2 cm
Height = 10 cm

Volume of a cone: $V = \frac{Ah}{3}$
where A = base area

In [22]:

```python
pi = 3.142
r = 2
h = 10

A = pi * r ** 2   # (cm2)

# A can now be used as a variable in other equations

V = A * h / 3     # (cm3)

print(V, 'cm3')
```

41.89333333333333 cm3

Example 2: Create a variabale `Name` and assign it a `string` value.

Use an arithmetc operator and `Name` to print the output: `My name is` followed by the value of `Name` . e.g.

```
    My name is Hemma
```

```python
Name = 'Hemma'

print('My name is ' + Name)
```

```
My name is Hemma
```

When you complete the in-class exercises today you can choose to:

- save your answers to each exercise as separate .py (Python) files
- *comment out* some of your code to allow you to store it all in one file, but only run certain (*uncommented*) blocks of code