**APCSP Activity 1.3.2: Python Variables and Functions**

Learning Target: Define the problem and analyze research to create a solution to a problem.

**Step 17**

a. Define a function hyp(leg1, leg2) that returns the length of the hypotenuse of a right triangle.

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| def hyp(leg1, leg2):  return (leg1 \*\* 2.0 + leg2 \*\* 2.0) \*\* 0.5 |

b. Define a function mean(a, b, c) that returns the mean of three numbers.

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| def mean(a, b, c):  return (a + b + c) / 3 |

c. Define a function perimeter(base, height) that returns the perimeter of a rectangle with side lengths base and height.

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| def perimeter(base, height):  return (base \* 2) + (height \* 2) |

**Conclusion Questions**

1. Read the introduction to this activity again. Describe something you would like to have automated by a program.

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| An amazon web crawler that will query all the information related to specified keywords and neatly display them without displaying any of the ads. |

2. What are the native data types you learned about in this activity?

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| Int, string |

3. What are some differences between the command line of the interpretive IPython session and the code editor where you edit a file of code?

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| The code editor allows you to program a block of code and run it all at once unlike the command line where you run code line by line |

4. What do you think might be some of the advantages of putting code inside of a function definition?

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| You can easily call it from any point in the code. |