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CS 1400

Exercise 3: Expressions

1) Translate each expression into python code: (named variables in exercise 3.1.py)

1) $(3+4) * 5$

2) $((n * (n-1)) / 2)$

3) $(4 * \text{math.pi} * r ** 2)$

4) $\text{math.sqrt}((r * (\text{math.cos}(a) ** 2) + (\text{math.cos}(b)) ** 2))$

5) $(y_2 - y_1) / (x_2 - x_1)$

Shell results:

35.0

define the numeric value of n; n = 1

0.0

define the value of r (radius); r = 1

12.566370614359172

define the value of r (radius); r = 1

define the numeric value of a; a = 1

define the numeric value of a; a = 1

0.7641028487401795

for the following, not that $x_2 - x_1$ can NOT
== 0

define the numeric value of y1; y1 = 1

define the numeric value of y2; y2 = 1

define the numeric value of x1; x1 = 2

define the numeric value of x2; x2 = 1

-0.0

2) If operands are negative, I hypothesize that the value's returned would be negative.

1) -3

2) 2

3) -4

4) -2

5) 3