

# ch1-4 Review Quiz

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CMPT14x

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# Quiz 2: 10 minutes, 20 points

- Which are legal Python variable **names**? Why?

**num-apples**

**BEGIN**

**for**

**05LabScore**

**\_3**

**Paul's\_age**

- Contrast **static typing** vs. **dynamic typing**. Pros/Cons?
- Describe at least **four** kinds of **documentation** (internal or external) you should have in your Python programs.
- Write a complete Python **program** to evaluate and print the value of the sum  **$1 + 2 + 3 + \dots + 999 + 1000$** .
  - ◆ Docstring / comments not necessary but useful for partial credit.

# Quiz 02: answers #1

- Which are legal Python variable **names**? Why?
  - ◆ **num-apples**: not okay (punctuation)
  - ◆ **BEGIN**: okay
  - ◆ **for**: not okay (reserved word)
  - ◆ **05LabScore**: not okay (starts with number)
  - ◆ **\_3**: okay (albeit poor style!)
  - ◆ **Paul's\_age**: not okay (punctuation)

# Quiz 02: answers #2-3

- Contrast **static typing** vs. **dynamic typing**.
  - **Static typing**: variables cannot **change** type
    - ◆ Must **declare** type of variable and **initialize** value
    - ◆ **Compiler** enforces correct type
  - **Dynamic typing**: can **change** type
    - ◆ More **flexible**, but usually we **don't want** variables to change type
- Describe at least **four** kinds of **documentation** (internal or external) you should have in your Python programs.
  - **Comments, docstrings, online help/prompts, user manual, programmers' diary, variable names**

# Quiz 02: answers #4

- Write a complete Python **program** to evaluate and print the value of the sum  $1 + 2 + 3 + \dots + 999 + 1000$ .

- **While** loop or **for** loop:

```
sum = 0
```

```
for counter in range(1, 1001):
```

```
    sum += counter
```

```
print "The sum is", sum
```

- **Or:**

```
print "The sum is 500500"
```