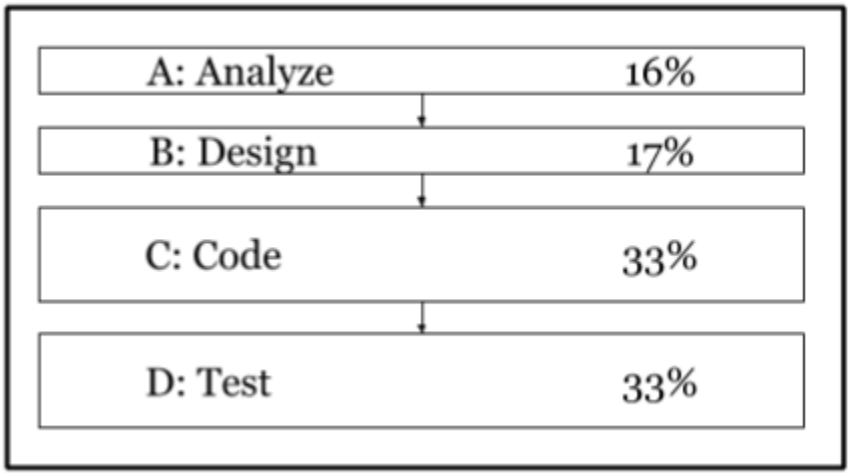
Model 1 The Waterfall Model

The following diagram shows the typical percentage of **total cost & effort** for each stage of software development. In practice, these percentages vary widely by project.



Questions (10 min) Start time: _____

1. Based on the Waterfall Model:

a) How many stages are there? 4

b) Which stage is 1st? A: Analyze

c) Which stage(s) must be finished before **coding** starts? A: Analyze, B: Design

2. Based on the Waterfall Model:

a) What % of total effort is in the **last stage**? 33%

b) What % of total effort is in the **first two stages**? 33%

c) When the project is 25% completed, what % of **analysis** is done? 100%

d) When the project is 25% completed, what % of **coding** is done? 0%

e) When the project is 50% completed, what % of **coding** is done? About 50%

f) When the project is 50% completed, what % of **testing** is done? 0%

3. It is important to find and fix errors in software.

a) If **coding** errors are found during **C: Code**,
in which stage should they be fixed? C: Code

b) If **coding** errors are found during **D: Test**,
in which stage should they be fixed? D: Test

c) If **analysis** errors are found during **B: Design**,
in which stage should they be fixed? B: Design

d) If **analysis** errors are found during **D: Test**,
in which stage should they be fixed? D: Test

e) Which stage focuses most on **finding** errors? D: Test

f) Are major errors in analysis and design more likely
when the project is **similar** to past projects, or **different**? different

4. Later stages often take more time, effort, and money than expected. Explain why based on your answers to the previous questions.

Later stages must fix errors from earlier stages, and many errors are found late in the project during the Test stage.