# Data Engineering Python Test: Candidate Answer Sheet

**Instructions:**  
Please provide your answers to the tasks below. Ensure your responses are clear and complete. You may include calculations or explanations as needed.  
  
**Note:** Some tasks requiring coding (e.g., refactoring or unit test creation) are not included in this answer sheet. These will be assessed through your GitHub submission. Focus here on providing answers to calculation-based questions.

## GitHub Source Code Link

GitHub Repository Link:

https://github.com/PhoenixPhungNguyen/JRM\_DA\_EntryTest\_ThiMinhPhungNguyen.git

## 1) Fix the Bug in 'Average Au Grade' (10%)

**Answer:**- Average AU Grade**:** **11.418**

## 6) Report on the Total Drilled Meters by Company (10%)

**Answer:**  
- DESRIG: **177** meters  
- HOLESRUS: **45** meters

## 7) Report on the Total Meters Drilled Per Day (1st, 2nd, 3rd, and 4th October) (10%)

**Answer:**  
- 01-10-2016: **84** meters  
- 02-10-2016: **87** meters  
- 03-10-2016: **20** meters  
- 04-10-2016: **31** meters

## 8) Calculate Distances from New Hole (2.5, 32.5) (10%)

**Answer:**

**- MRM001: 2.915 meters**

**- MRM002: 3.536 meters**

**- MRM003: 7.906 meters**

**- MRM004: 2.915 meters**

**- MRM005: 4.465 meters**

**- MRM006: 7.906 meters**

**- MRM007: 7.762 meters**

**- MRM008: 8.276 meters**

**- MRM009: 11.113 meters**

## 9) Estimate Au Grade for New Hole (2.5, 32.5) (10%)

**Answer:**  
- Average Au Grade: **3.388**

## 10) Repeat Step 8 and 9 for Additional New Holes (10%)

**Answer:**  
**For New Hole at (7.5, 32.5):**  
- Average Au Grade: **2.825**  
**For New Hole at (2.5, 37.5):**  
- Average Au Grade: **3.325**

**For New Hole at (7.5, 37.5):**  
- Average Au Grade: **3.067**