Programming Basics Exam

Task 6. Gold mine

A group of enthusiasts tour various locations where there are gold mines. Your task is to help them by writing a program that yes**accepts the number of locations**and expected**average gold yield per day**for **one** location. For**every day**you will get how much gold they got at the location. Check if they are achieved the expected yield for a given location or not.

Entrance:

Initially read from the console**one number**-**number of locations**-**integer**in the interval [1 .. 100]

For each locationare read**two numbers, one per line:**

1. On**the first**line -**expected average yield per day gold**-**real number**in the interval [0.00 .. 10000.00]
2. On**the second**line -**number of days in which to dig at the location**-**integer**in the interval [1 .. 30]

For every dayis readable**one number each**:

-**Gold mined for the day**-**real number**in the interval [0.00 .. 1000.00]

Exit:

After the excavation of a location is completed, one line is printed as appropriate:

- If**the average yield**gold for the day**reaches or exceeds the expected average daily yield of gold:**
  - o "**Good job! Average gold per day: {average yield per day for the given location}.**"If**the**
- **average yield**gold for the day**is below the expected average daily yield of gold:**
  - o "**You need {gold that has not reached the expected average yield} gold.**"

The result should be formatted to the second decimal place.

Sample input and output

Entrance	Exit	Explanations
2 10 3 10 10 11 20 2 20 10	Good job! Average gold per day:10.33. You need5.00gold.	Selected2locations. First location: - expected average yield per day:10kilograms - the days when they will dig are3 Day 1: mining10kilograms Day 2: mining10kilograms Day 3: mining11kilograms The average yield is (10+10+11) /3=10.33kg. 10.33> =10=>**the average yield**gold for the day**reach or exceeds the expected average daily yield of gold** Second location: - expected average yield per day:20kilograms - the days when they will dig are2 Day 1: mining20kilograms Day 2: mining10kilograms

		The average yield is (20+10) /2=15kg. 15<20=>**the average yield**gold for the day**is below the expected average daily yield of gold and do not reach** 20-15=5kg.
Entrance	**Exit**	**Explanations**
1 5 3 10 1 3	You need0.33gold.	She has been chosen1 location. First location: - expected average yield per day:5kilograms - the days when they will dig are3 Day 1: mining10kilograms Day 2: mining1kilogram Day 3: mining3kilograms The average yield is (10+1+3) /3=4.66..7kg. 4.66..7<5=>**the average yield**gold for the day**is under expected expected average yield per day gold and do not reach**5-4.66..7=0.33kg.

(["1", "5", "3", "10", "1", "(3"])	You need0.33gold.	She has been chosen1 location. First location: - expected average yield per day:5kilograms - the days when they will dig are3 Day 1: mining10kilograms Day 2: mining1kilogram Day 3: mining3kilograms The average yield is (10+1+3) /3=4.66..7kg. 4.66..7<5=>**the average yield**gold for the day**is under expected expected average yield per day gold and do not reach**5-4.66..7=0.33kg.