Puzzles

Q1. A chocolate costs ₹1 each.
For every 3 wrappers, you can get 1 additional chocolate for free.
If you have ₹40, find out how many total chocolates you can eat, using the above scheme optimally.

Q2. You hire a worker for 7 days and agree to pay them 1 unit of gold at the end of each day. However, you only have a single 7-unit gold bar. The conditions are: The worker must be paid exactly 1 unit per day. You are allowed to cut the gold bar into pieces. After cutting, you can use those pieces to make exact payments each day. What is the minimum number of cuts required to split the gold bar so that you can pay the worker correctly for all 7 days?

Q3. Given two hourglasses of 4 minutes and 7 minutes, the task is to measure 9 minutes.   → H.w

Q4. Four people — A, B, C, and D — need to cross a bridge at night.
They have only one torch, and the bridge is too dangerous to cross without it.
At most two people can cross at a time, and when two people cross together, they must move at the slower person's speed.

The time each person takes to cross the bridge is as follows:

A → 1 minute

B → 2 minutes

C → 7 minutes

D → 13 minutes

You must determine the minimum total time required for all four people to cross the bridge safely, following the above rules.

Q5. A person has 3000 bananas and a camel. The person wants   → H.w
to transport the maximum number of bananas to a destination that is 1000 km away, using only the camel as a mode of transportation. The camel cannot carry more than 1000 bananas at a time and eats a banana every km it travels. What is the maximum number of bananas that can be transferred to the destination using only a camel (no other mode of transportation is allowed)?

$$\rightarrow \quad 40 \quad \rightarrow \frac{39}{3} \quad \rightarrow 13 \quad + \quad \boxed{13}$$

$$13 = \frac{12}{3} + 9$$

$$\boxed{40 + 13 + 6}$$

$= 59$

$+13 \longrightarrow \dfrac{12}{3} \longrightarrow 4 + \boxed{1} \quad \hookrightarrow 4_{+2}$

$4 \rightarrow 3 + 1$

$= 6$

$\rightarrow$

Q3.

7 min   4 min

After 4 min

$\rightarrow$ 3 min

$\rightarrow$ No sand.

4 min

$\rightarrow$ After 7th min

$\rightarrow$ 1 min

7 min

→ 1 min

→ 3 min

→ After 8th min

6 min

1 min

1 min

4 min

1 min

→ 7th min clock

6 min

1 m

8m

7m

13 m

end

Ans-
$$2 + 1 + 13 + 2 + 2 = 20 \text{ mins}$$

7m

13m

1m

2m

1m

2m

7m

13m

→

3000

↑
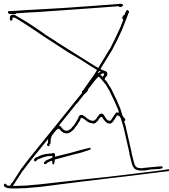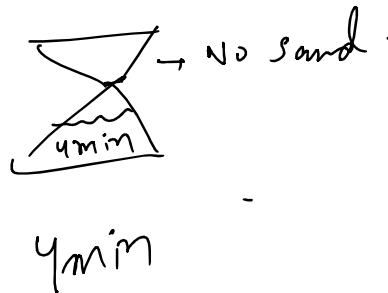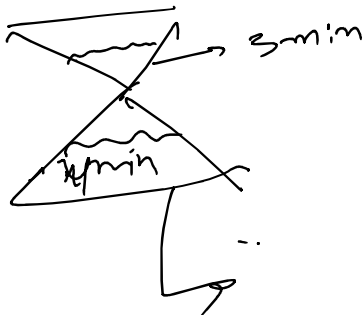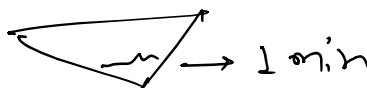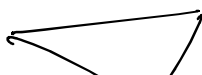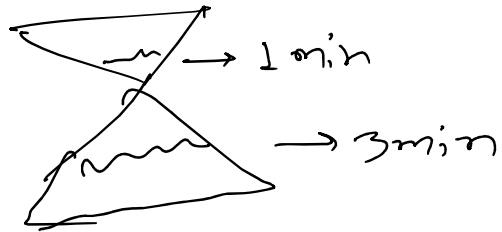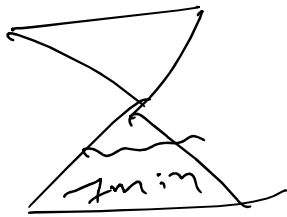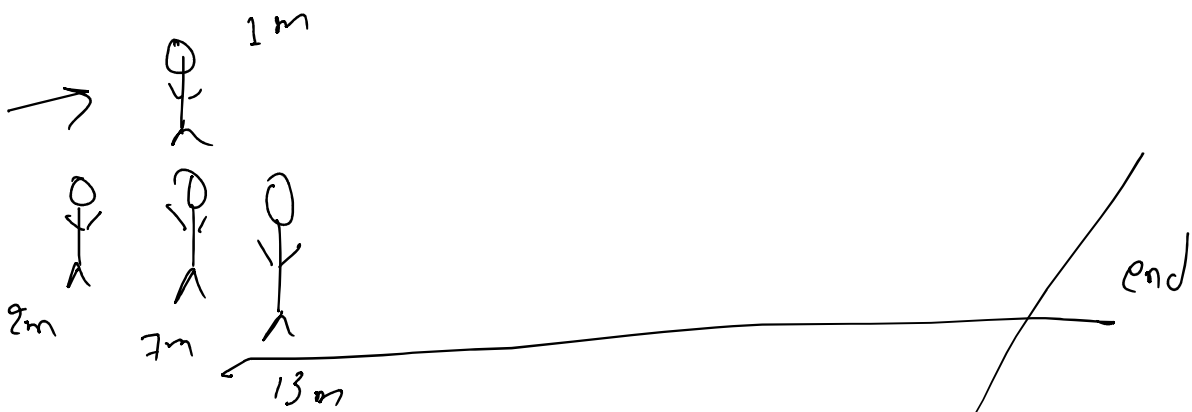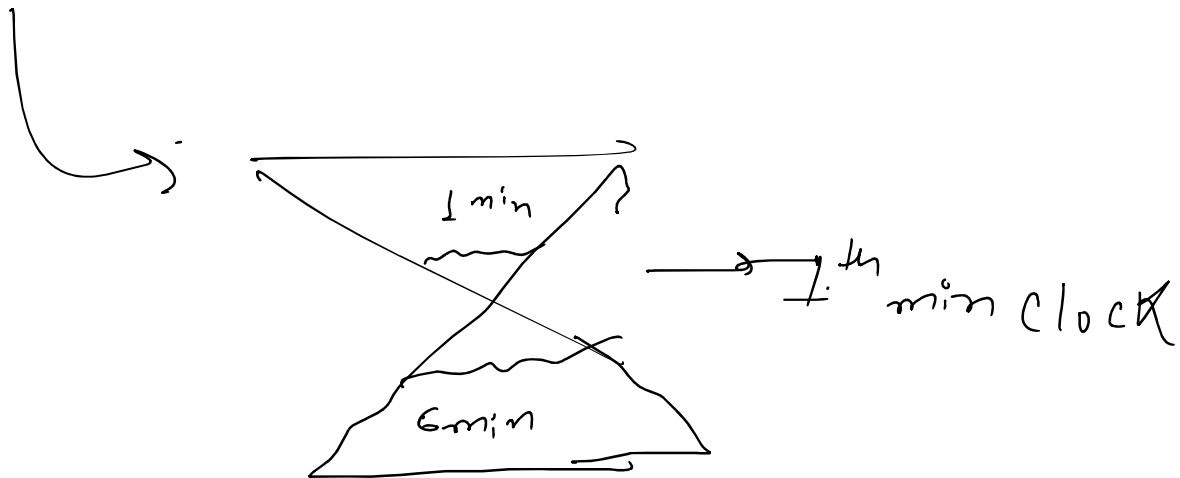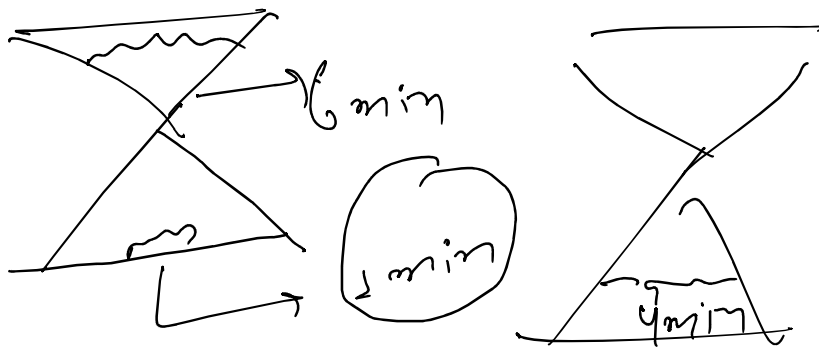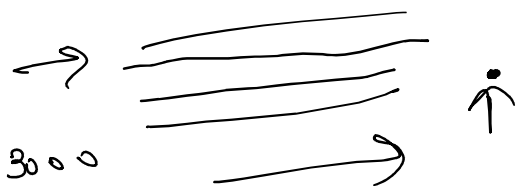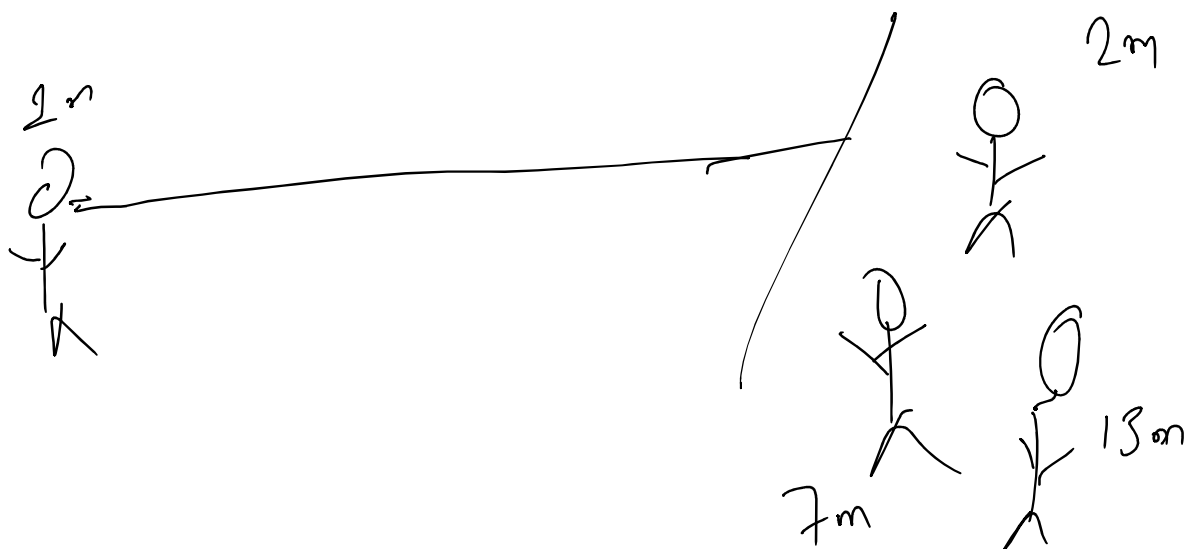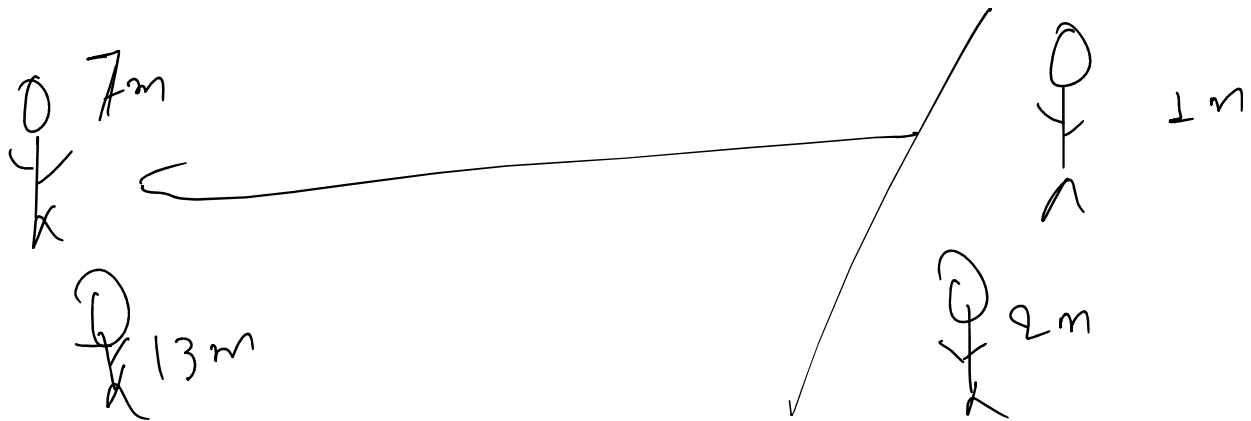
$$3000 - 5x = 2000$$

$$x = 200 \text{ km}$$

$$2000 - 3x = 1000$$

$$x = 333 \cdot 33$$

$$\hookrightarrow \quad x = 333$$

$$333$$
$$200$$
$$533$$

$$1000 - \boxed{(533)} = 417$$

$$\boxed{533}$$

$$\rightarrow \text{yahoo}$$