

KRITIKA JUNKYARD WARS: ROUND 1

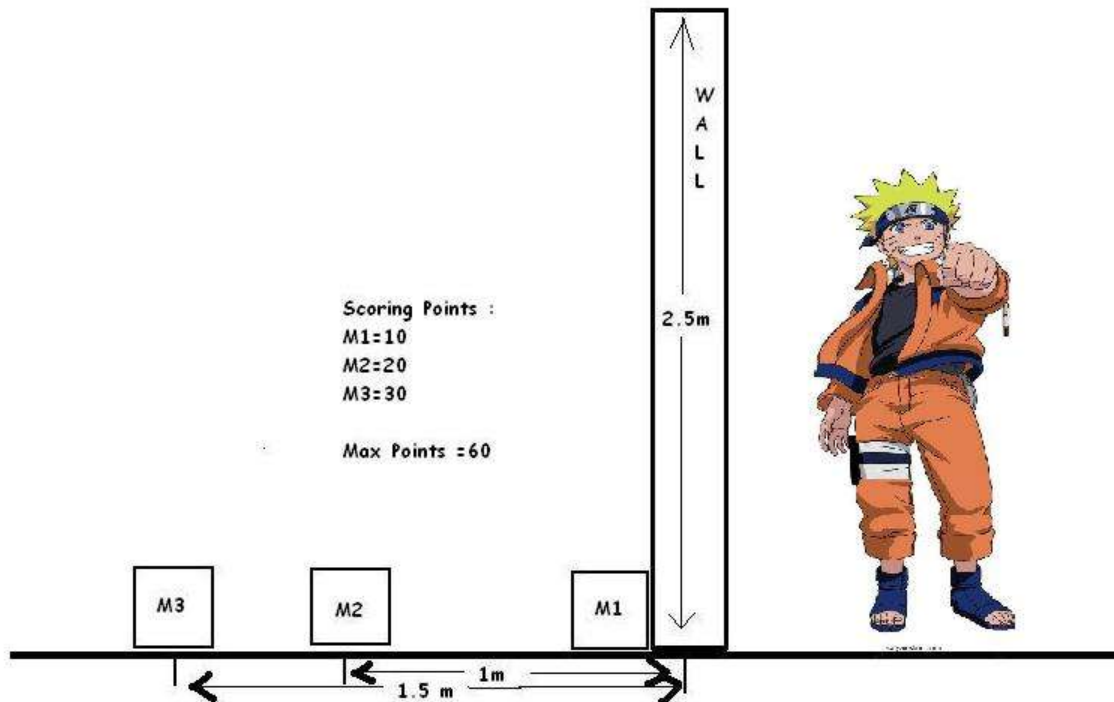
"Imagination is more important than knowledge" - Albert Einstein

Problem 1: 😊HELP NARUTO 😊

Three weight blocks are kept on one side of the wall; Naruto is standing on the other side of wall. You have to devise a mechanism for Naruto such that he can bring weight blocks on his side.

You can bring any number of blocks which will give you higher score, for example: you can try possible combination like

- A) M1 10 points
 - B) M2 & M3 20+30 points
 - C) M1 & M3 10+30 points
 - D) M1,M2 & M3 10+20+30 points
- ➔ It is up to you to devise the mechanism such that it can carry the blocks simultaneously or individually. Bonus points will be given for the mechanism carrying blocks simultaneously.
- ➔ While designing your mechanism you should be very careful about the feasibility of mechanism. Mechanism should be practically feasible in given condition.
- ➔ All blocks are of different weights.



Problem 2: ☺ KILL INSECT KE BILL ☺

Farmer “AKAHLU” has a corn farm. The farm is under the attack of three different types of insects and they have made their colonies in the farm. Insects are eating away the crops. The worried farmer comes to nit kurukshetra for rescue.

So you guys have to design a mechanism which will destroy the insect colonies by throwing pesticide bombs on them. The launching/throwing area is at some distance from the field.

Colony is cylindrical in shape.

Colony A diameter .3 m height 1 m,

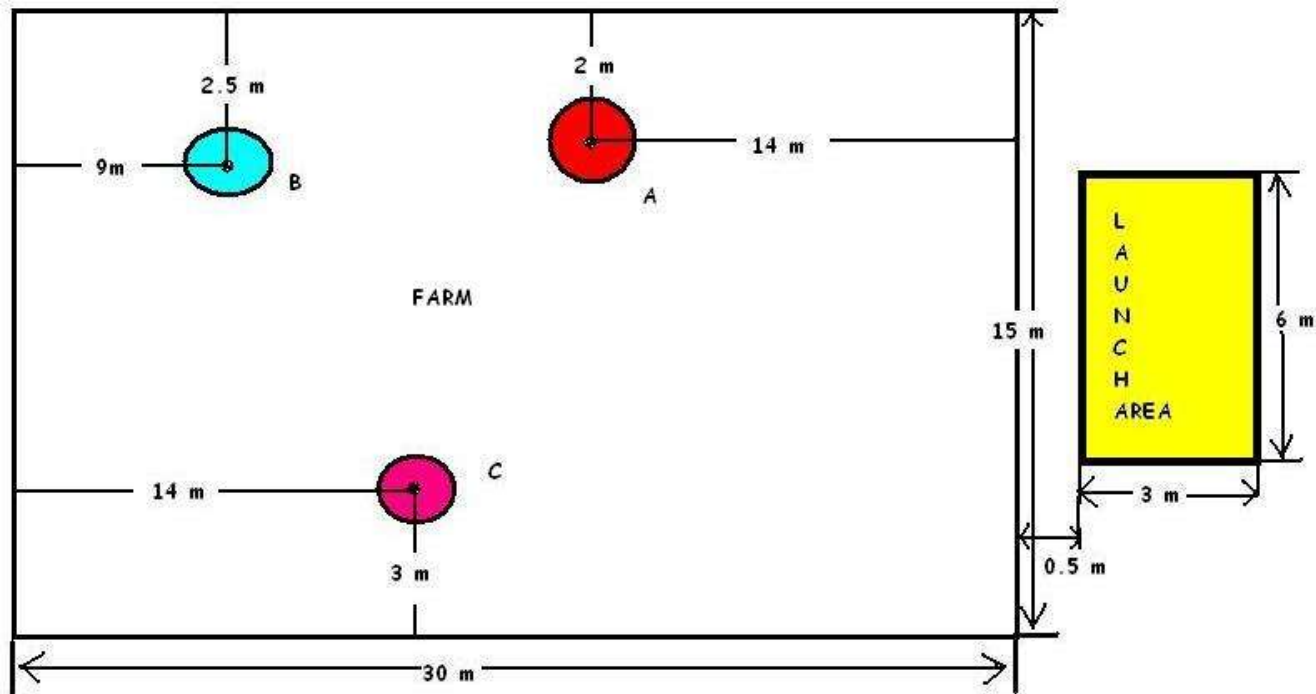
Colony B diameter .4 m height .75m,

Colony C diameter .5 m height .5 m.

-You should use a non-handheld mechanical device (NO GULAEL) to throw a bomb (mass balls) to the given distance without the aid of an explosive substance.

-Mechanism should be accurate so that it doesn't destroy the near by crops.

-While designing your mechanism you should be very careful about the feasibility of mechanism. Mechanism should be practically feasible in given condition.



For the design specification, Abstract format, Final Evaluation criteria details go to <http://www.literati.net.in/2009/kritika.html> (kritika details modified).

Important Points:

- 1.) These two questions are only meant for round 1(elimz).
- 2.) You have to submit the solution of both the above mentioned problem.
- 3.) You need to provide the answers according to the Design specification as mentioned in the website.
- 4.) Abstract format is to be followed as mentioned in website under SAMPLE ABSTRACT.
- 5.) Team should consist of four members.
- 6.) Last date for submission will be 14th April 6:00 pm.
- 7.) No entries will be entertained after this date. (We are going follow it **STRICTLY** this time).
- 8.) For online submission mail your solution to literati09.nitk@gmail.com with subject “Kritika” (doc or pdf format) Or you can submit a hard copy to the under mentioned:

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