Format has been corrected not the timing

I added 25 seconds to each timing to correct for the intro song -john argentino

**The airport problem - subtitles:**

1

00:00:00,000 --> 00:00:40,000

The administrations of three

2

00:00:40,000 --> 00:00:44,000

neighboring cities: A, B and C decided

3

00:00:44,000 --> 00:00:46,000

to build an airport dividing the costs of

4

00:00:46,000 --> 00:00:48,000

implementation. The condition on the

5

00:00:48,000 --> 00:00:50,000

choice of the most suitable place is

6

00:00:50,000 --> 00:00:53,000

that the sum of the distances from each

7

00:00:53,000 --> 00:00:55,000

city to the airport is as small as

8

00:00:55,000 --> 00:00:57,000

possible. The team of experts in charge

9

00:00:57,000 --> 00:01:00,000

of the work has created a model to get

10

00:01:00,000 --> 00:01:02,000

a preliminary idea of where to place the

11

00:01:02,000 --> 00:01:05,000

structure. At their disposal there are

12

00:01:05,000 --> 00:01:08,000

some snails a big metal ring and a long

13

00:01:08,000 --> 00:01:09,000

string.

14

00:01:09,000 --> 00:01:12,000

Explain how the team can manage to use

15

00:01:12,000 --> 00:01:14,000

the materials to tell approximately the

16

00:01:14,000 --> 00:01:17,000

ideal location of the airport. Imagine

17

00:01:17,000 --> 00:01:19,000

that the cities are placed at the

18

00:01:19,000 --> 00:01:20,000

vertices of a triangle which is

19

00:01:20,000 --> 00:01:22,000

obviously reproduced in scale as

20

00:01:22,000 --> 00:01:34,000

shown in figure. This is one possible

21

00:01:34,000 --> 00:01:37,000

setting the rope starts from one nail,

22

00:01:37,000 --> 00:01:40,000

goes inside the ring, goes around the

23

00:01:40,000 --> 00:01:42,000

other nail, the third nail, inside the

24

00:01:42,000 --> 00:01:45,000

ring again and now you can just pull the

25

00:01:45,000 --> 00:01:48,000

rope in order to find the point that

26

00:01:48,000 --> 00:01:54,000

you're looking for. In order to reach the

27

00:01:54,000 --> 00:01:56,000

point, we have to move the rope a bit

28

00:01:56,000 --> 00:02:00,000

because there is some resistance caused

29

00:02:00,000 --> 00:02:03,000

by the materials that we are using but

30

00:02:03,000 --> 00:02:07,000

after a while you'll reach a position from

31

00:02:07,000 --> 00:02:08,000

which the ring doesn't move anymore,

32

00:02:08,000 --> 00:02:12,000

which is more or less this one. And as

33

00:02:12,000 --> 00:02:16,000

you can see the three distances

34

00:02:16,000 --> 00:02:20,000

between the ring and the nails are

35

00:02:20,000 --> 00:02:24,000

placed more or less 120 degrees from one

36

00:01:24,000 --> 00:02:27,000

another which is 1/3 of a circumference,

37

00:02:27,000 --> 00:02:30,000

and that's the point that we're looking

38

00:02:30,000 --> 00:02:34,000

for: the minimum distance between the

39

00:02:34,000 --> 00:02:36,000

nails and the airport when you sum it

40

00:02:36,000 --> 00:02:37,000

Together

41

00:02:37,000 --> 00:02:40,000

[Music]