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| Kichwa cha Video | **Tatizo la Uwanja wa Ndege** | |  |
| Mada | Jiometri | |  |
| Malengo | Pata wazo angavu la tatizo la kupunguza, tambua jinsi ya kutekeleza kwa vitendo matatizo ya kupunguza. | |  |
| Urefu | 45min | |  |
| Mahali pa Kambi |  | |  |
| Wawezeshaji |  | |  |
| N. ya wanafunzi |  | |  |
| Tarehe |  | |  |
| Rasilimali  inahitajika | Pini (3 kila kikundi), kamba (1/kikundi), pete ya chuma (si lazima lakini inafaa kuzuia msuguano 1/kikundi), kadibodi nene au sehemu ya mbao inayoweza kutupwa (1/kikundi) | |  |
| Maandalizi | Weka alama 3 kwenye kuni | |  |
|  | | | |
| **Muda wa video** | **Mwezeshaji anafanya nini** | **Wanachofanya wanafunzi** | |
| 00:00 - 00:26 | Utangulizi Mkuu wa Video ya VMC | |  |
| 00:27 - 00:40 | Utangulizi wa Video | |  |
| 00:41 – 01:30 | Kitendawili | |  |
| 01:31 - 01:42 | Utangulizi wa jaribio la kwanza | |  |
| SITISHA VIDEO Kutafuta suluhu | * Kusaidia mchakato, kuchochea mawazo | * Jaribu kupata mpangilio wa kamba ili upunguzaji wa urefu wa kamba ulingane na kupunguza jumla ya urefu wa barabara | |
| 01:31 - 2:12 | Suluhisho | |  |
| SITISHA VIDEO Jiometri | * Kusaidia mchakato, kuchochea mawazo | * Jaribu kujua ni mali gani ya kijiometri ambayo hatua mpya ina uhusiano na 3 ya kuanzia. | |
| 2:13 – 2:48 | Inaonyesha pembe 120° | |  |

**suluhisho**

The point ,F, found as shown in the video, is called Fermat Point.

There are several different possible paths of the string that can be used to find point F.

Notice that the use of the ring is not strictly necessary, but it helps to reduce friction (natural enemy of this experience).

Once the point is found (before watching the solution in the video) students can be asked to find the angles by noticing that each angle is congruent and they form 360° all together.

A geometrical construction that can be used to find F consists in building equilateral triangles on the sides of the original triangle and connecting opposite points:

This construction can be replicated on the wooden board to verify that the two methods will lead to the same point.