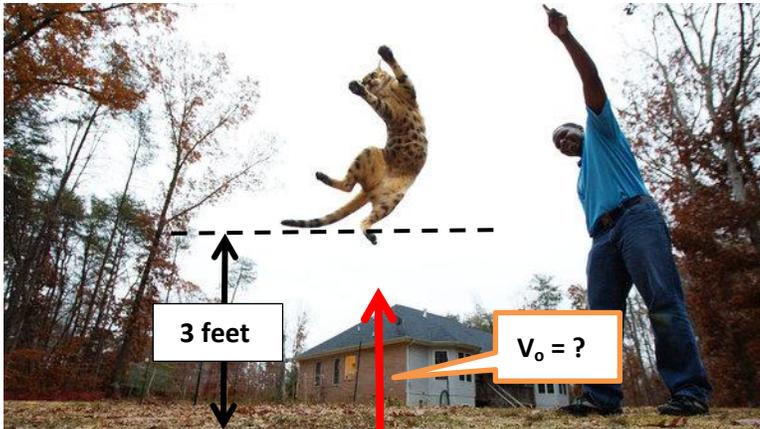


KINEMATICS

Units 4 & 5 Dr. John P. Cise, Professor of Physics, Austin Com. College,

1212 Rio Grande St., Austin Tx 78701 jpcise@austincc.edu & NYTimes Nov. 18,2011 by Jennifer Kingson

The Next Best Thing to Herding Cats



Most cats enter feline agility competitions cold, but other cats are trained

QUESTIONS: (a) Find V_o (initial velocity) of Cat in order to rise up to 3 ft and stop?
(b) Using kinematic equations :(1),(3) & (5) [see below to the left] find the time it took the cat to jump up 3 ft. and stop? In other words, find the time three ways....once by (1).....then by (3).....then by (5).
(d) Find the cat's speed just before it hit the ground on the way back? (e) Find the total time to jump up and come back to the ground?

ANSWERS: (a) 13.86 ft/s. (b) 0.433 s.
(c) -13.86 ft/s. (d) 0.866 s

- (1) $X = V_{ave}t$
- (2) $V_{ave} = (V_o + V)/2$
- (3) $V = V_o + at$
- (4) $V^2 = V_o^2 + 2aX$
- (5) $X = V_o t + (1/2)at^2$

It is a sport in which the contestants sometimes lie down in the middle of the field, unmotivated and bemused. **Feline agility competitions**, in which cats run through a miniature obstacle course full of hurdles and tunnels, have become fixtures on the cat show scene. Modeled after canine agility competitions, the tournaments feature a ring in which cat owners — some of whom have trained their pets from kittenhood — brandish a feather or sparkly wand to try to coax a cat to climb stairs, weave around poles and leap through hoops in as little time as possible.

This weekend the two major organizations for cat lovers — [the International Cat Association](#) and the [Cat Fanciers' Association](#) — are holding their annual cat shows, one in New York City and the other in Indianapolis. At both events, **any cat registered at the show can partake in the agility event** while the pedigreed cats are being judged. Most people send their cats into the ring cold, where they often get spooked by the crowds and unfamiliar setting. But others train their cats — usually with a regimen of kibbles, praise and neck rubs — and find **that they will do tricks**, albeit on their own terms. “They have to do all 10 obstacles, in order, counterclockwise, with no mistakes,” said Jill Archibald, agility coordinator for the Cat Fanciers' Association, who will be the ringmaster in Indianapolis. **Feline agility got started about a decade ago when two couples who met on the cat show circuit went out to dinner and started talking about the tricks their cats did.** They modified some dog agility obstacles and showed them to their cats; from there, a group called [International Cat Agility Tournaments](#) — or ICAT — was born.