

HIGH JUMP:

What is actually going on?

EVERYONE HAS INDIVIDUALS WHO HAVE INFLUENCED THEM IN THEIR CAREERS:

- HOLLIS CONWAY
- BOO SCHEXNAYDER
- DAN PFAFF
- DICK BOOTH
- CLIFF ROVELTO
- ROCKY LIGHT
- CHARLES LANCON

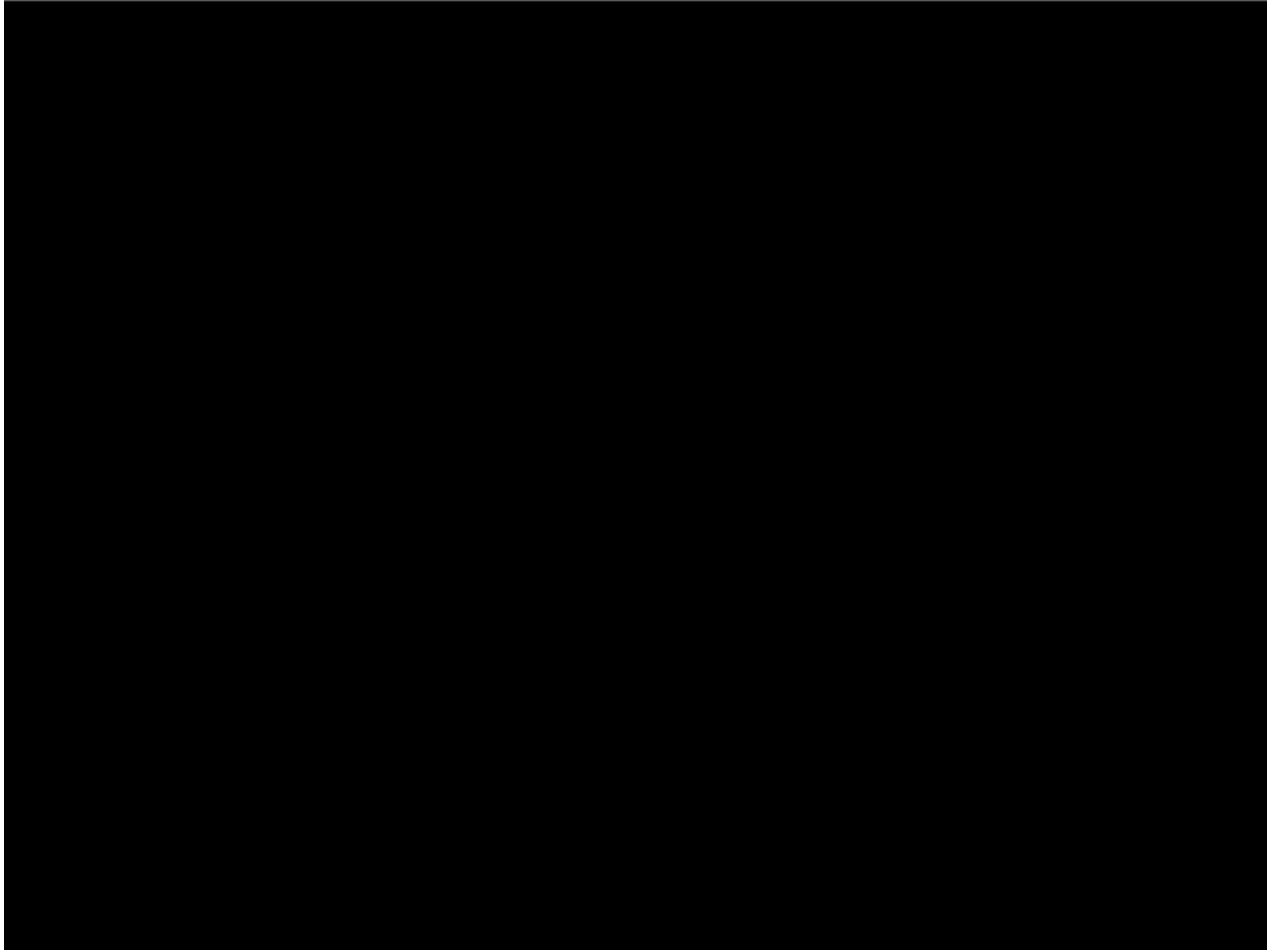
BOUDREAUX'S DUCK



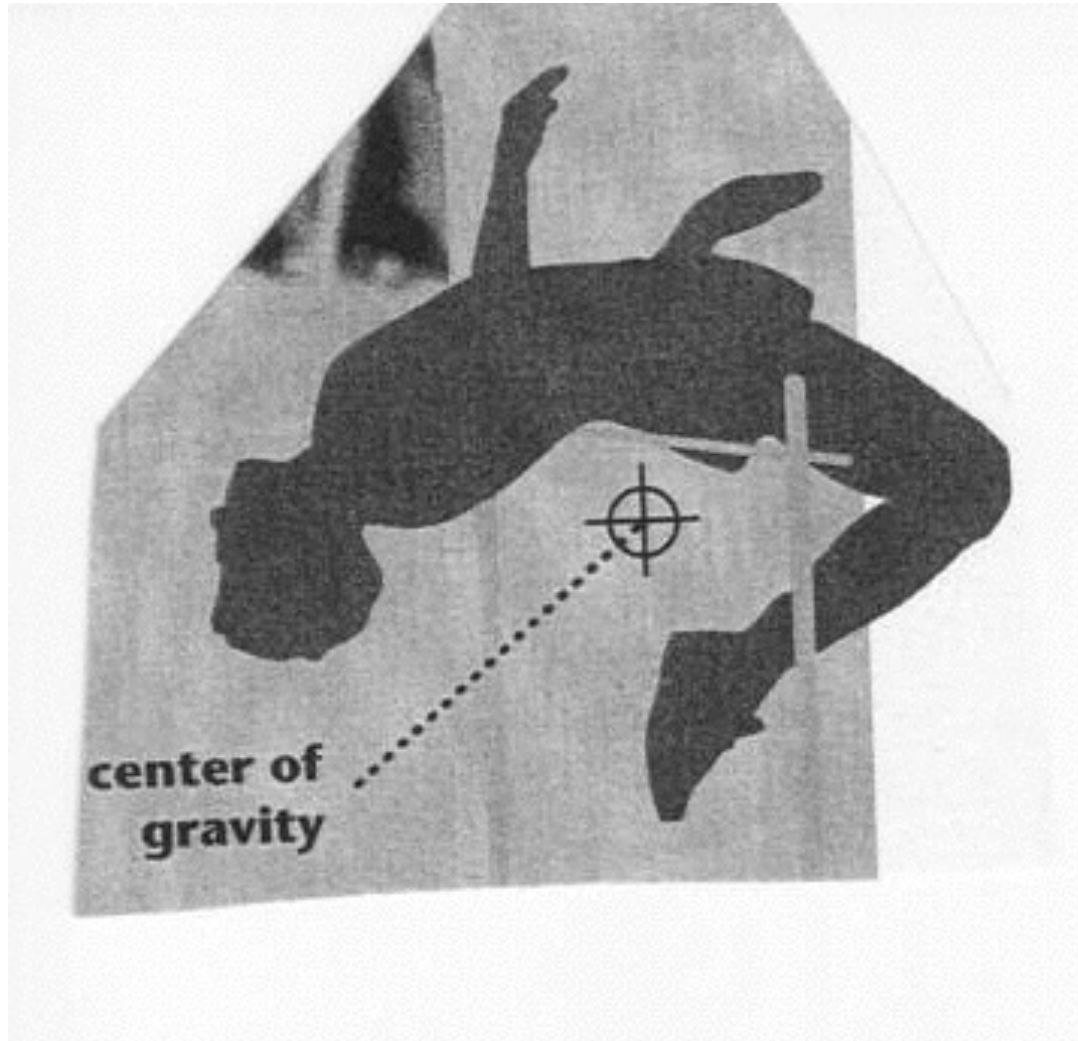
A Few Thoughts

- High Jumpers always lose
- The event is against a bar not against people
- Very emotionally taxing event
- The difference between success and failure is mm
- Must make every attempt to teach athlete that no single jump decides the final outcome, but being clean through the early heights is essential.

The Flop



Why the Flop Technique?



Establishing a curve

- You cannot defy the Laws of Physics
- The curve approach causes high centripetal forces=forces directed toward the center of a circle
- The J approach is the key to the high jump as we know it today.
Why?

Tangential Forces

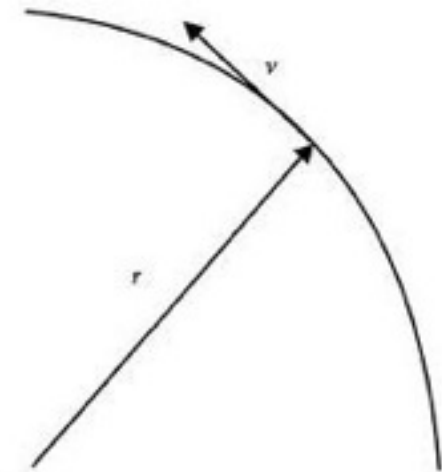
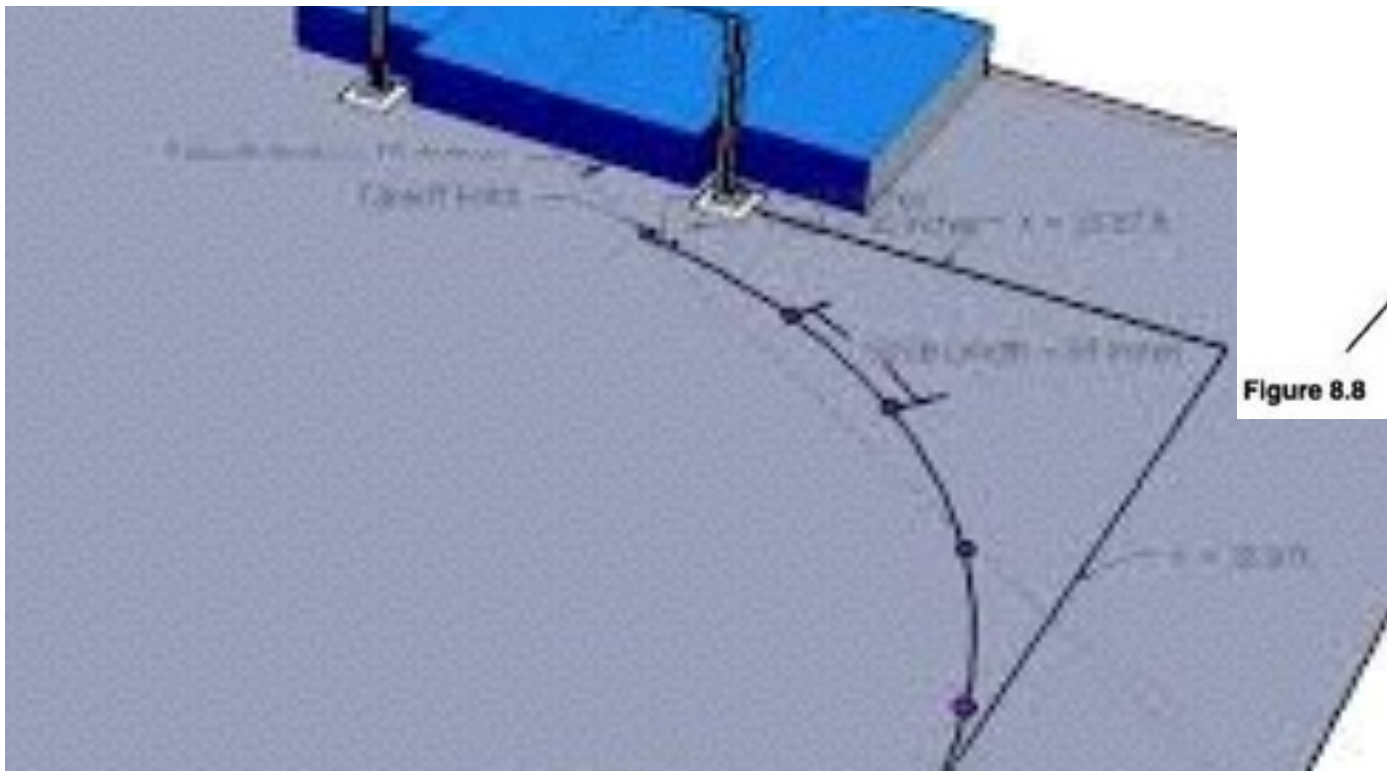
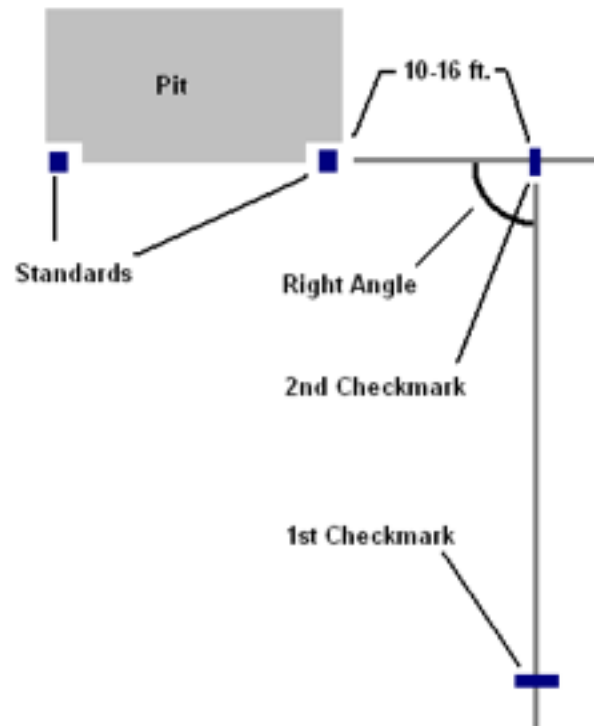


Figure 8.8

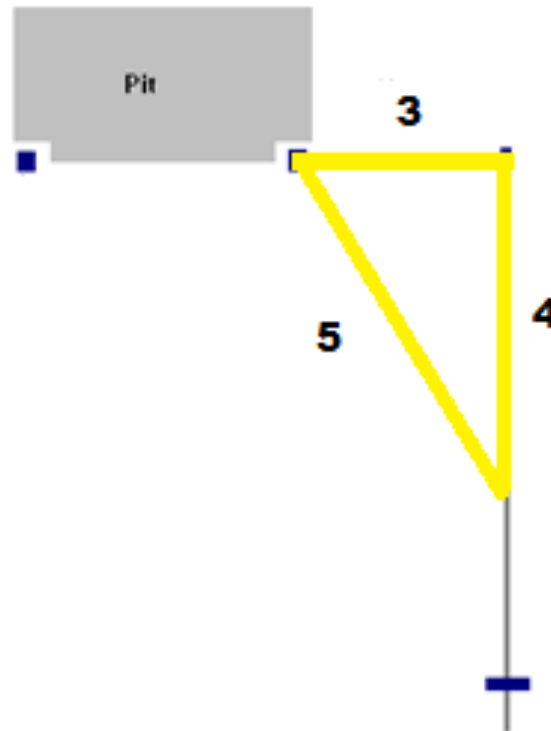
Finding a J



High Jump Checkmark Layout

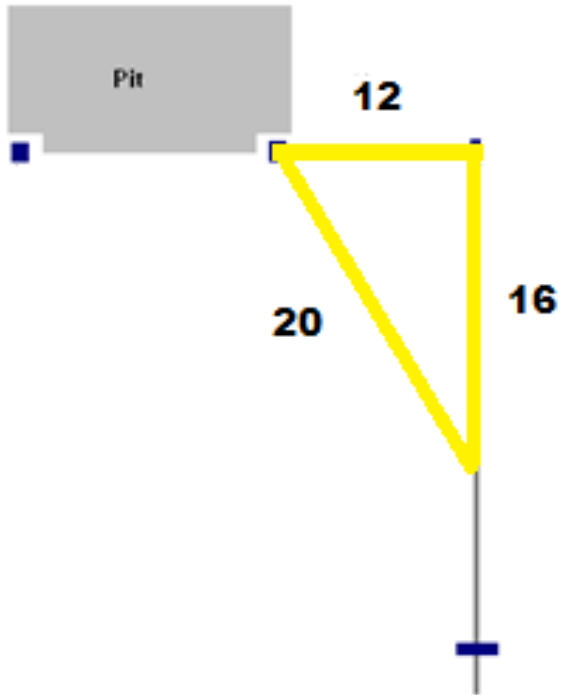
Finding a J

Triangulation Systems



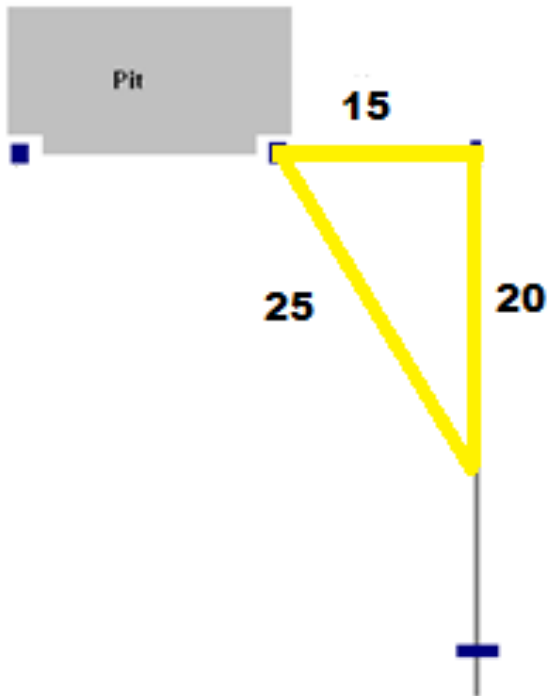
Finding a J

Triangulation Systems

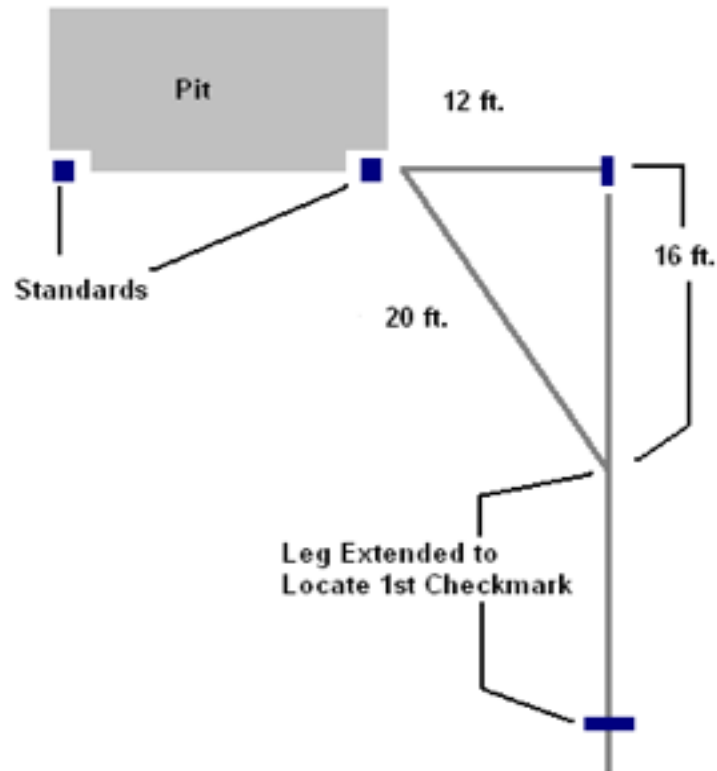


Finding a J

Triangulation Systems

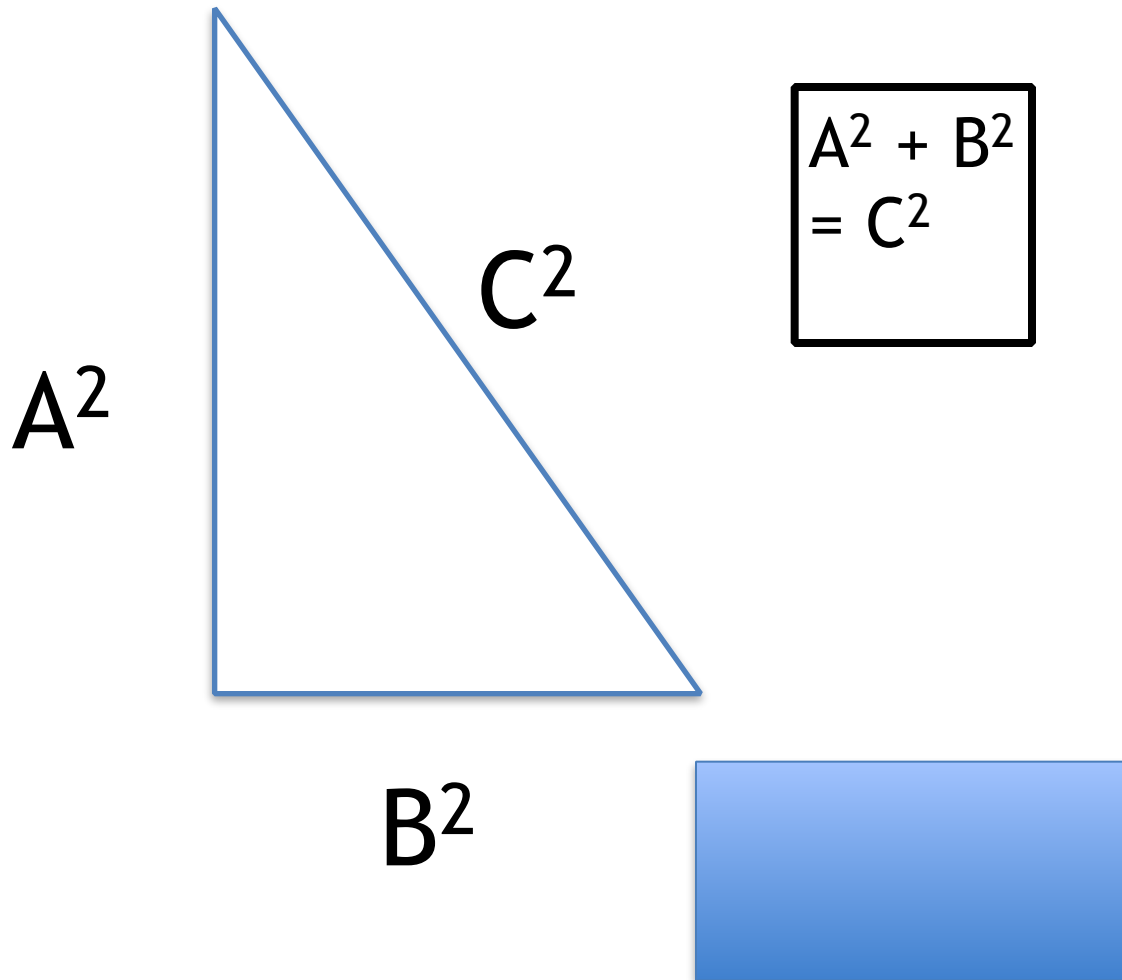


Finding a J



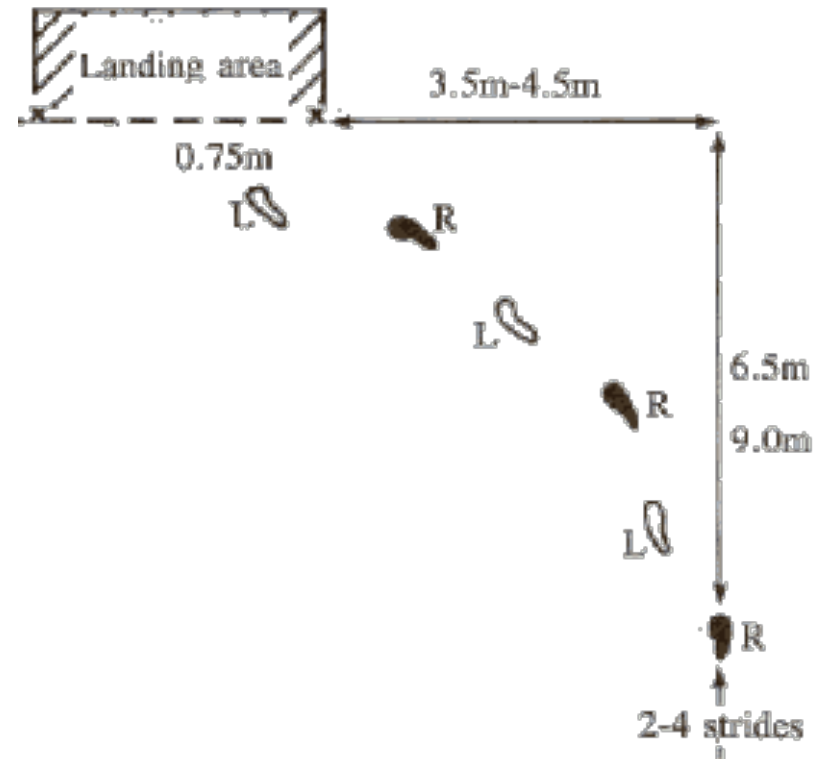
High Jump Approach Triangulation Sample

Pythagorean Theorem



Parts of the Curve

- The Straight=Horizontal Velocity
- The Transition=Outside foot initiates on 5th of 10 steps
- The Curve=Foot contacts on the curve and horizontal velocity is conserved.



Biomechanics of the High Jump Approach



Running the Curve and Preparation

- Outward pressure on the feet
- Inward body lean
- Shoulders remain perpendicular to the body and running mechanics are conserved
- The COM will be slightly lowered in preparation for takeoff
- The foot contact will flatten during the penultimate phase of preparation.

Biomechanics of the High Jump Approach



Takeoff location

- About one arm length away from the bar
- Just inside the near standard
- Foot angle to middle of back side of pit
- The better the jumper the farther out the takeoff point should be = pyramid example
- The shoulders should stay in alignment with the hips, conserving posture throughout the run
- Initiating the jump by turning the shoulders at takeoff causes increased rotational forces.

Preparation

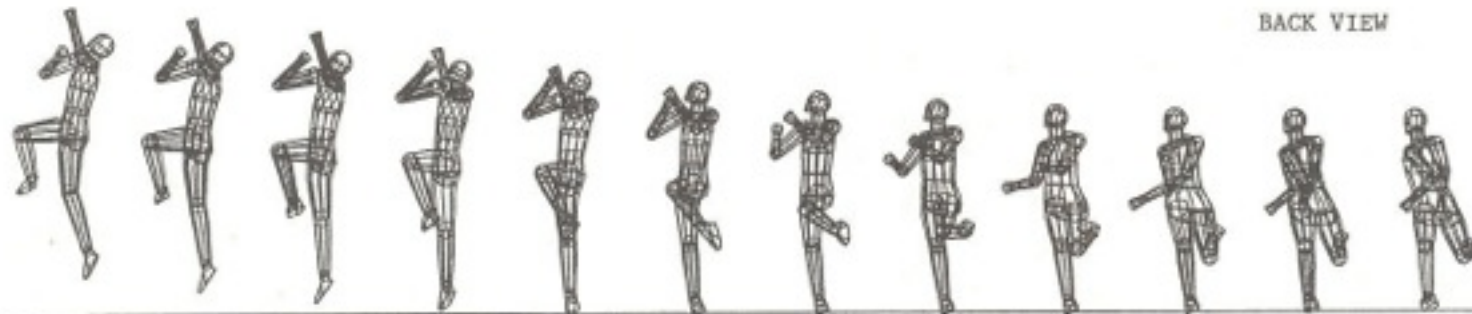


Preparation and Takeoff

SIDE VIEW



BACK VIEW



10.22

10.20

10.18

10.16

10.14

10.12

10.10

10.08

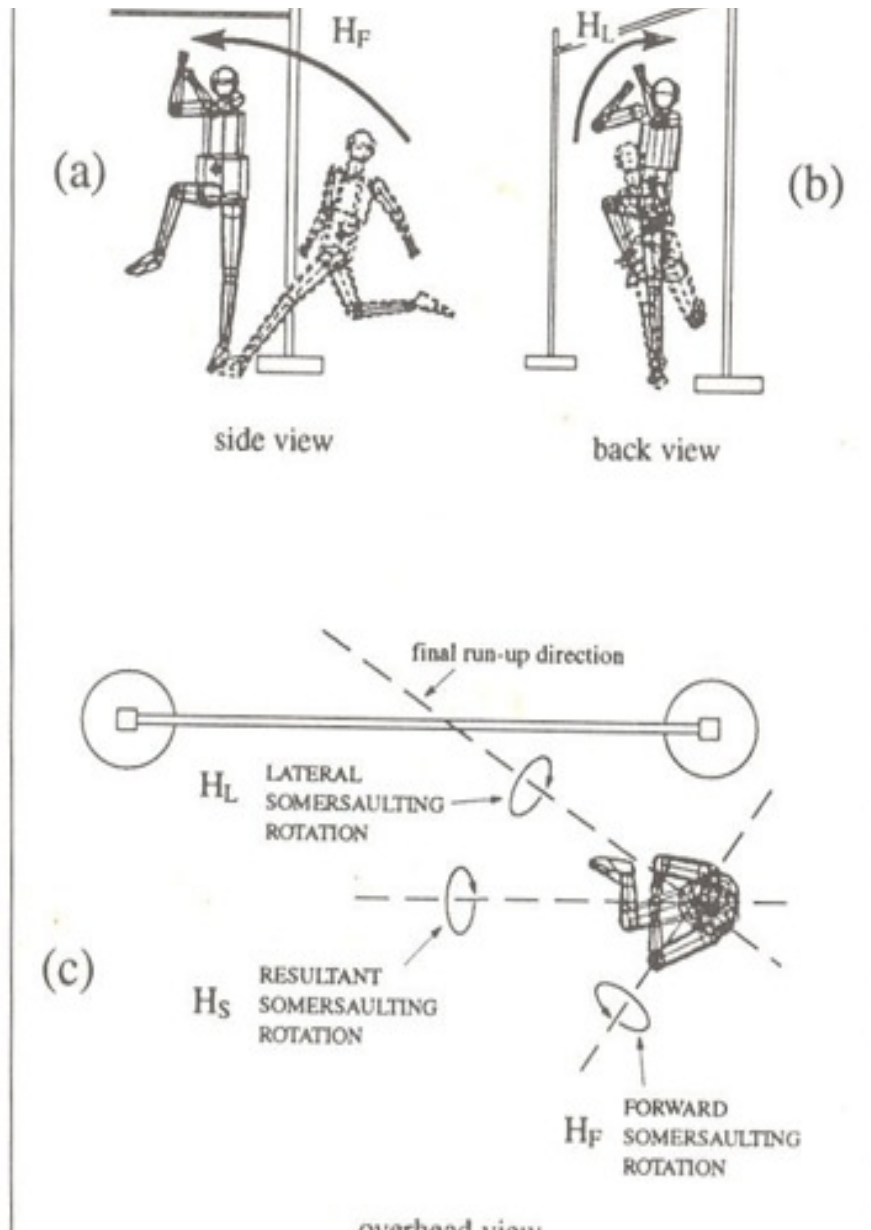
10.06

10.04

10.02

10.00

Takeoff Rotations



Takeoff



Visual Cues

- Point directly behind check point
- Near standard
- Far standard at intersection of crossbar

Flight

- The layback: hips hyperextended
- Back: should be arched, but not overarched as that will bring feet under the bar which could cause the heels to knock off the bar
- Knee Positions: flexed and split apart in flight
- Arm Movements: Arms on jumpers side, hands near the hips
- Head lifted toward the chest which raises the feet.

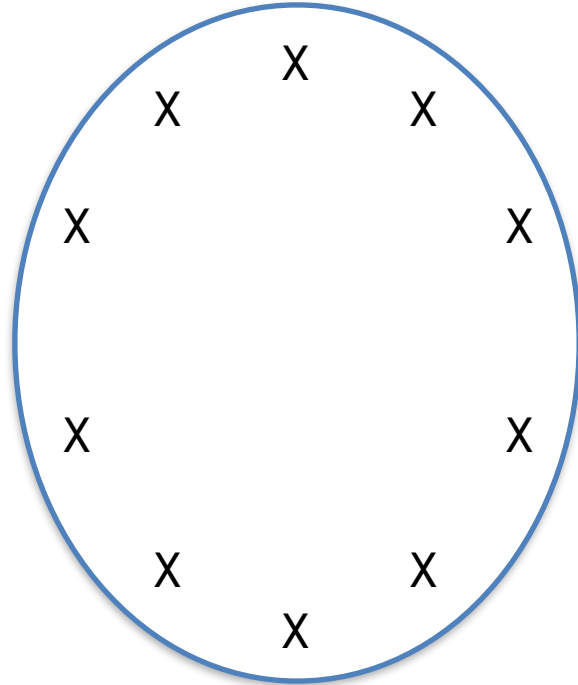
Flight



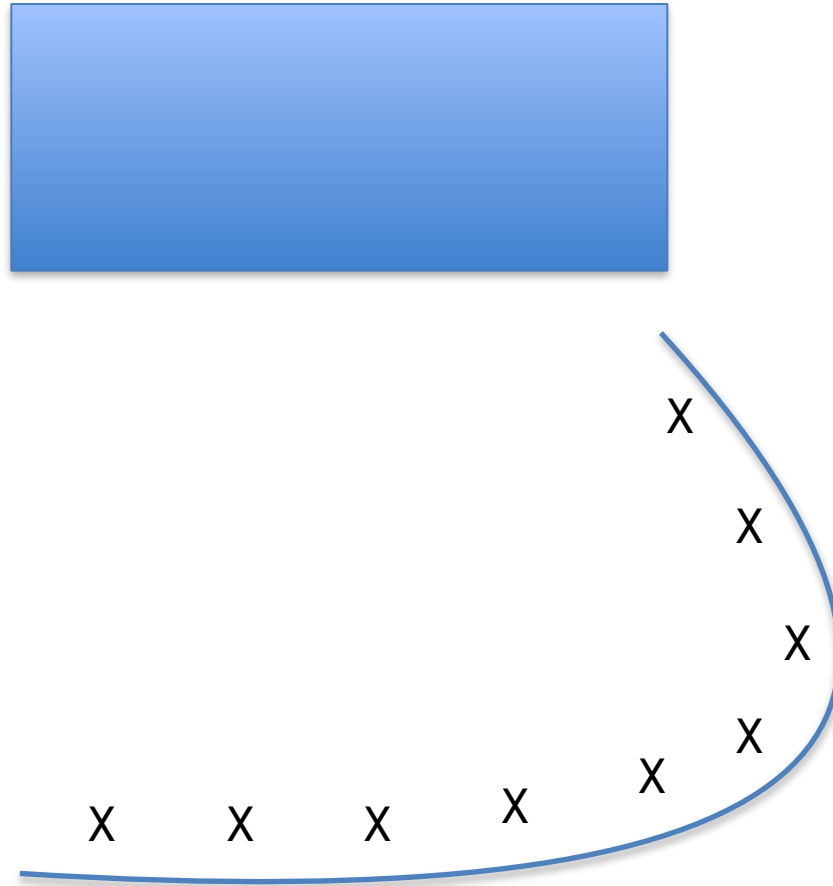
Progressions

- Circle Runs
- Half circle or C Runs
- Serpentine Runs
- Technical Buildups
- Step Counting and Trial and Error to produce approach distance
- Fundamental Jumping: Power Skips, Continuous Takeoffs, Hurdle Hops
- High Jump Specific Drills
- Short Run Jumps
- Full Approach Approaches

Circle Runs



1/2 CIRCLE OR C RUNS



Progressions

Teaching and Training Exercises for the High Jump



Putting it all Together



Thank You

Questions

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