

ALEXANDER SELLERHOLM OCH SOFIA SIVERTSSON
PRESENTERAR ÅRETS FYSIKHÄNDELSE



VI SYNAR FILMTRIXEN

FYSIKUM I SAMARBETE MED STOCKHOLMS UNIVERSITET PRESENTERAR HOLLYWOODFYSIK.
EN GASTKRAMANDE FÖRELÄSNINGSSERIE DÄR DU FÅR REDA PÅ EXAKT HUR HÅRDA FYSIKENS LAGAR ÄR.
MEDVERKANDE ALEXANDER SELLERHOLM OCH SOFIA SIVERTSSON. MED KLIPP FRÅN BL.A. SPEED, DÖDLIGT VAPEN,
ENTRAPMENT, SPIDER-MAN, TERMINATOR 3, EVENT HORIZON M.FL.



KEANO REEVES DENZEL WASHINGTON SANDRA BULLOCK

GET
READY FOR
RUSH
HOUR.



SPEED

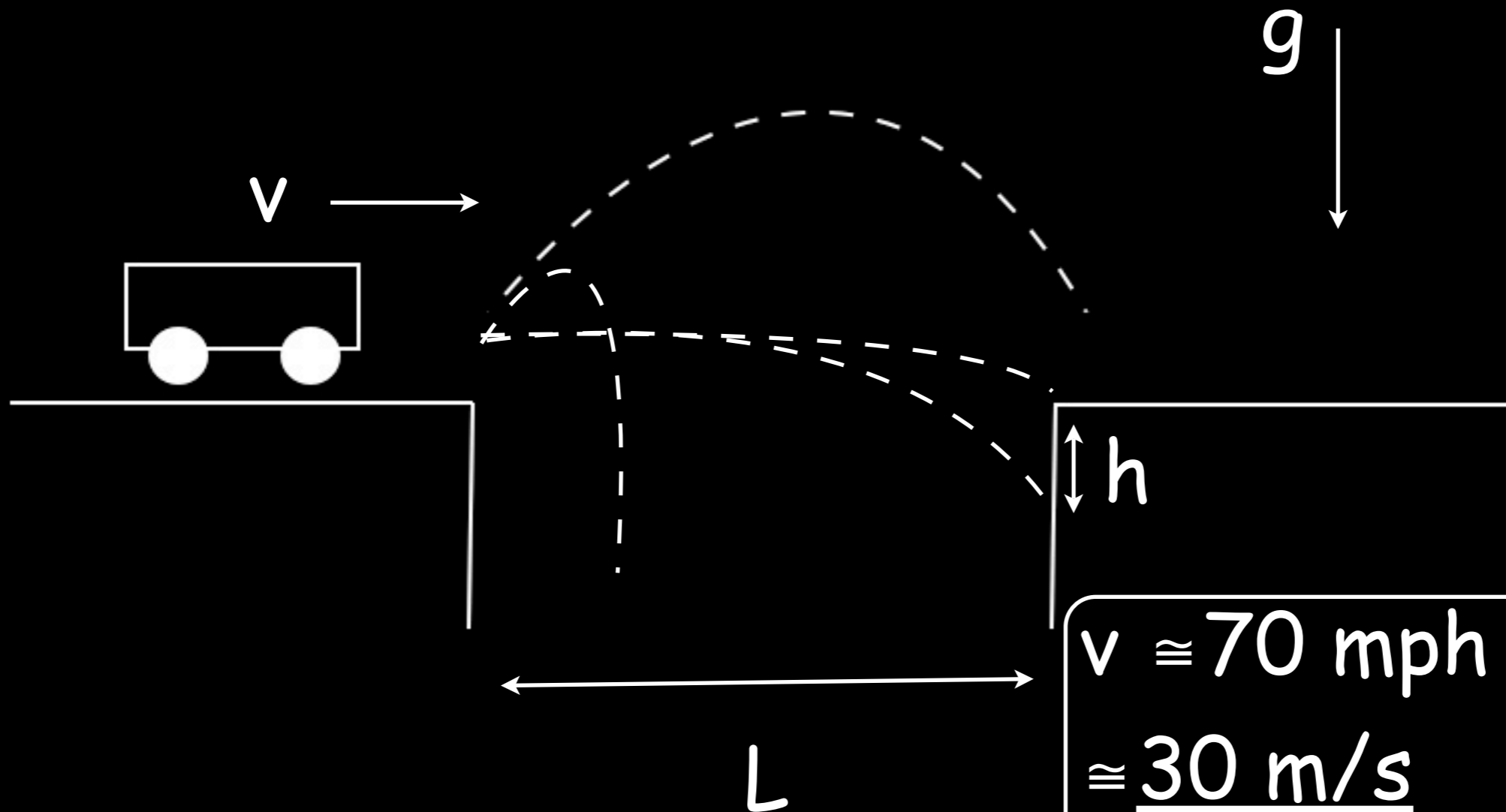
THE HOME ENTERTAINMENT GROUP PRESENTS AN AMBLIN ENTERTAINMENT PRODUCTION KEANO REEVES DENZEL WASHINGTON SANDRA BULLOCK "SPEED"
JEAN YVES ESCOFFIER AND JEFF LINDERS WITH MARK WINGFIELD AND JONAS WOGAN. EXECUTIVE PRODUCERS JACKSON LASKER PRODUCED BY ANDREA J. PATTON AND JIM WINGFIELD WRITTEN BY BRADLEY ROY

R

JUNE 10

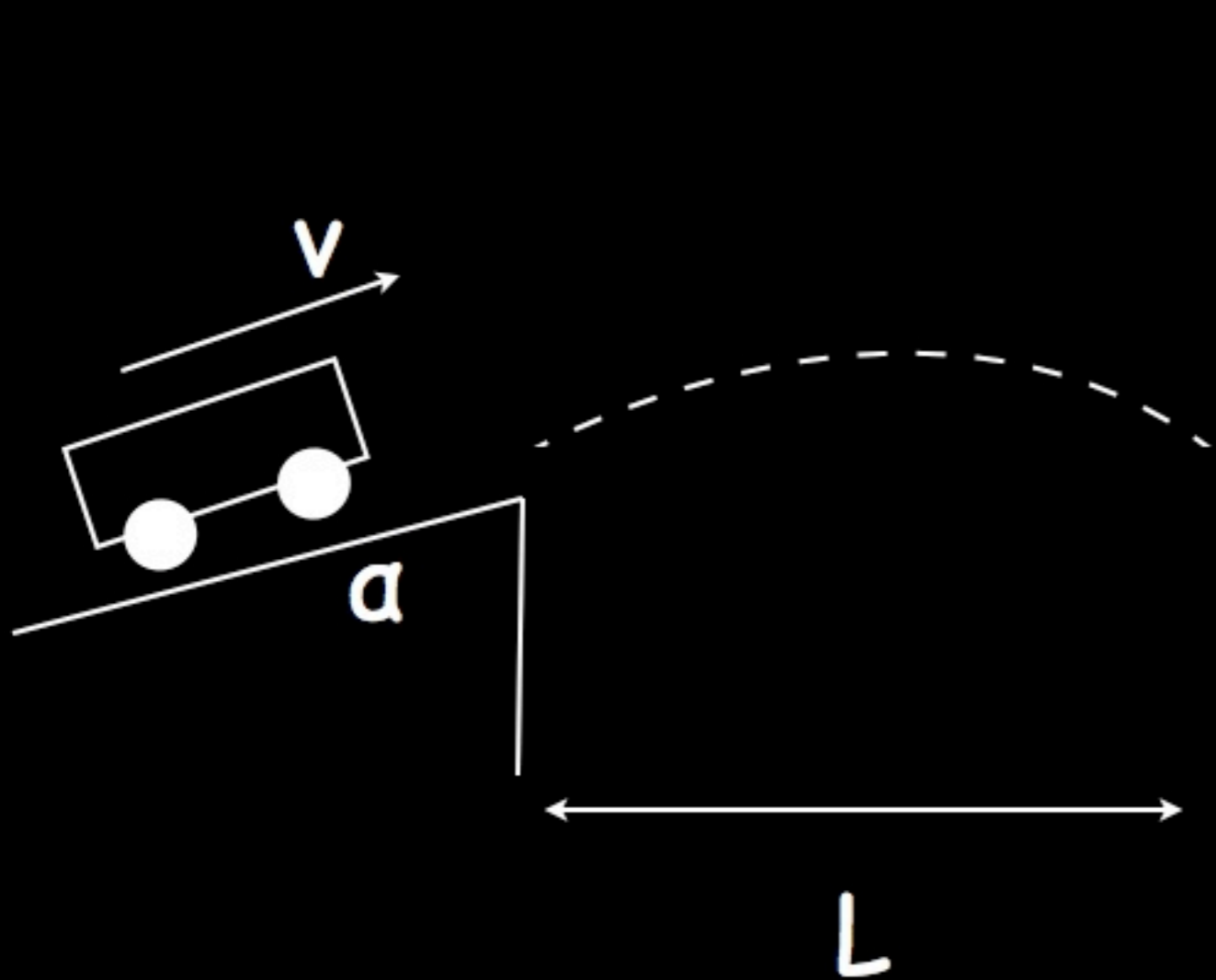
PRODUCED BY MARK WINGFIELD WRITTEN BY BRADLEY ROY





$$\begin{aligned} v &\approx 70 \text{ mph} \approx 110 \text{ km/h} \\ &\approx \underline{30 \text{ m/s}} \\ L &\approx 30 \text{ m} \\ g &\approx 10 \text{ m/s}^2 \end{aligned}$$

$$h = \frac{1}{2} g t^2 = \frac{1}{2} g (v/L)^2 \approx 5 \text{ m}$$



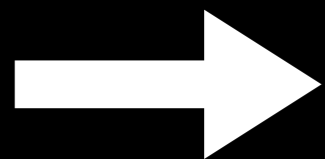
$$v \approx 70 \text{ mph} \approx 110 \text{ km/h}$$

$$\approx \underline{30 \text{ m/s}}$$

$$L \approx 30 \text{ m}$$

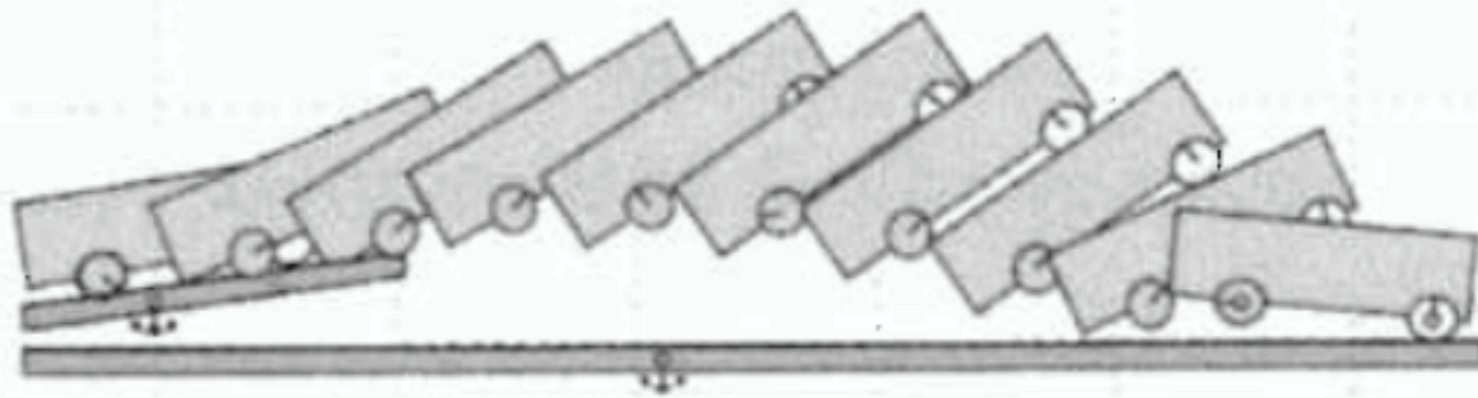
$$g \approx 10 \text{ m/s}^2$$

$$h = \frac{1}{2} g t^2 - v t \sin \alpha = 0$$

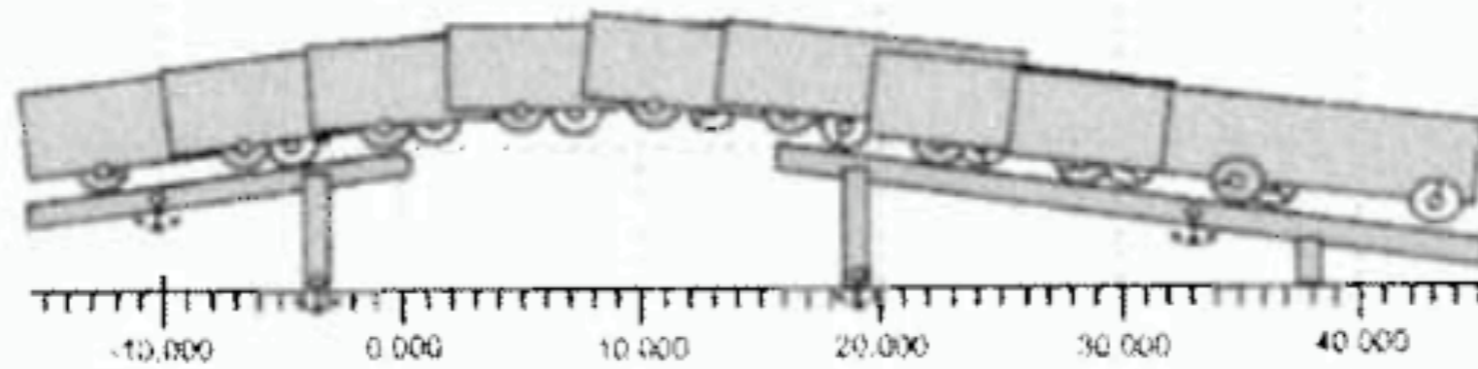


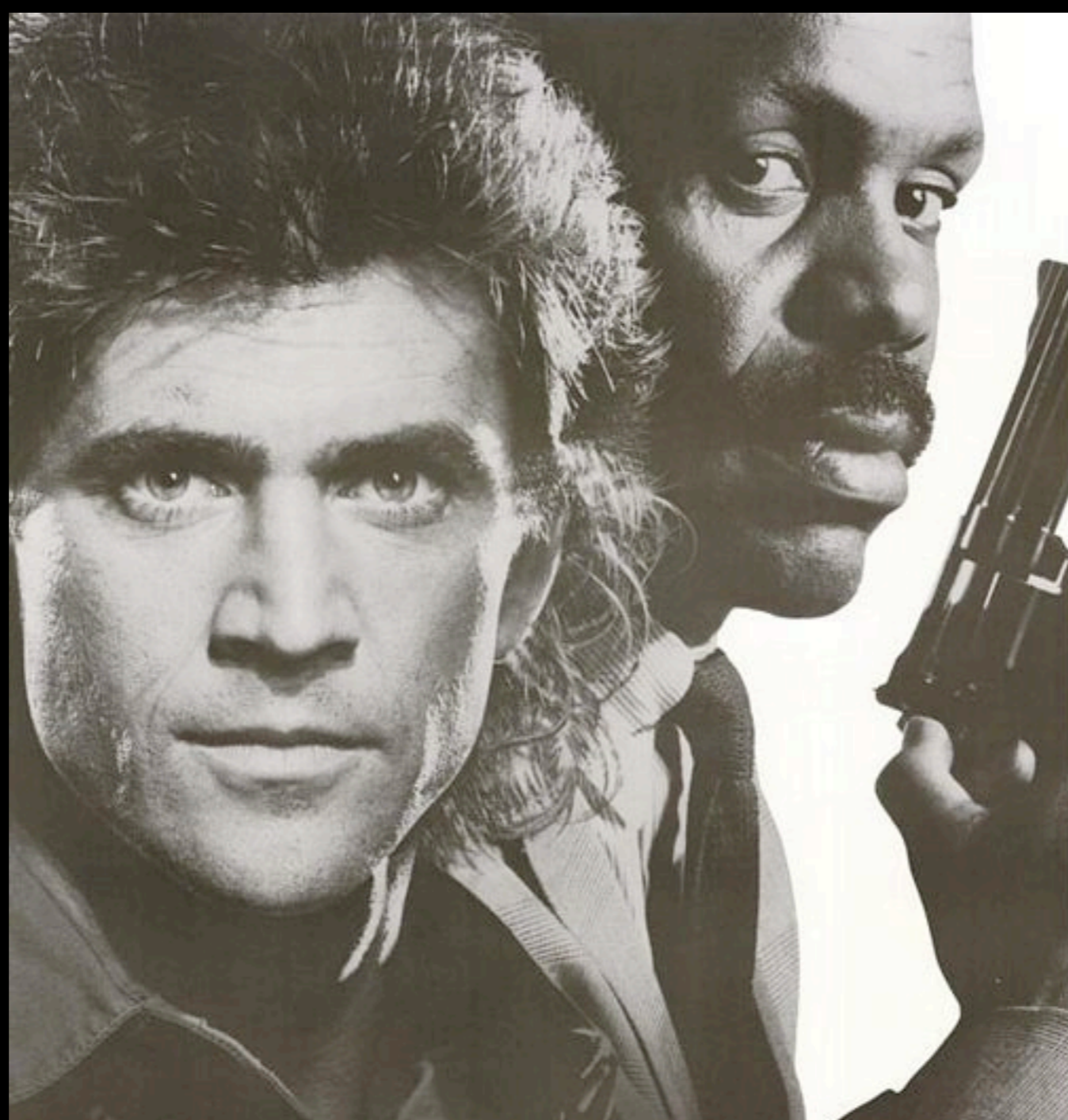
$$\alpha \approx 9^\circ$$

How the Special Effect Was Done



How the Special Effect Could Have Been Done With Greater Realism





MEL GIBSON · DANNY GLOVER

Two cops.
Glover carries a weapon...
Gibson is one.
He's the only L.A. cop registered as a

LETHAL WEAPON

WARNER BROS. Presents MEL GIBSON · DANNY GLOVER
A SILVER PICTURES Production A RICHARD DONNER Film "LETHAL WEAPON"
GARY BUSEY Film Editor STUART BAIRD Production Designer J. MICHAEL RIVA
Director of Photography STEPHEN GOLDBLATT Music by MICHAEL KAMEN and ERIC CLAPTON
Written by SHANE BLACK Produced by RICHARD DONNER and JOEL SILVER Directed by RICHARD DONNER

R RESTRICTED
Under 17 requires accompaniment
Parental advice suggested

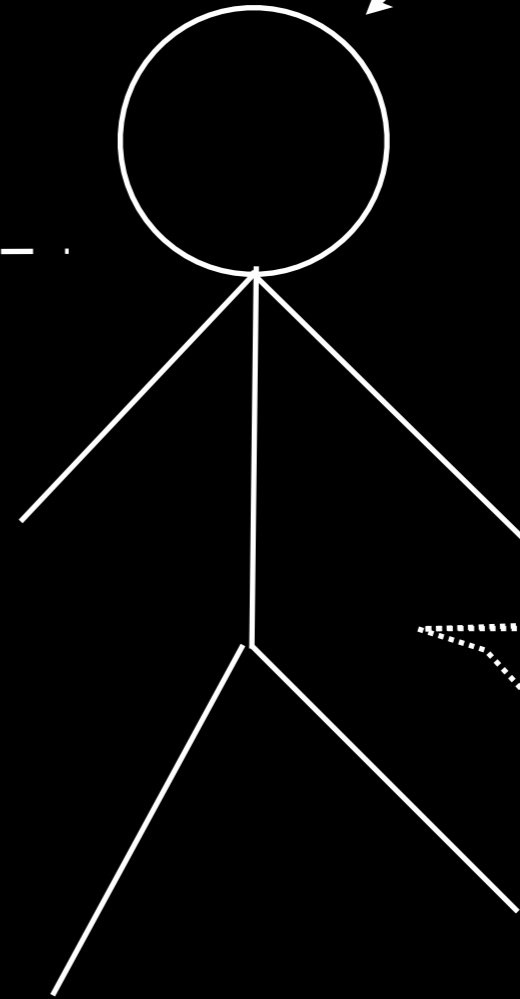
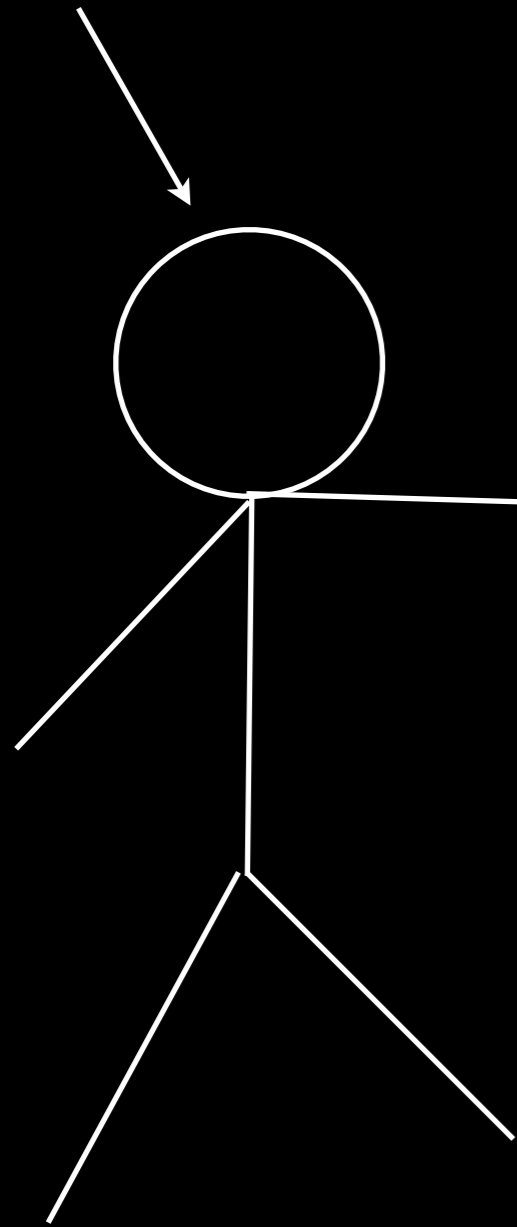
DD DIGITAL DOLBY DIGITAL
EXPERIENCE

BECAUSE THE ZONE BOOK SOUNDTRACK AVAILABLE ON WARNER BROS. RECORDS AND CASSETTES

FROM WARNER BROS.
A WARNER COMMUNICATIONS COMPANY
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Bad Guy

Mel



A

B

C

rörelsemängd \rightarrow $p = m v$ \leftarrow hastighet
 \leftarrow massa

Kulor: $m = 0.03 \text{ kg}$
 $v = 400 \text{ m/s}$

$\rightarrow p = m v = 12 \text{ Ns}$

Rörelsemängden är bevarad!

$12 \text{ Ns} = M V$

Mels massa $M = 80 \text{ kg}$ \rightarrow Mels hastighet $V = 0.2 \text{ m/s}$

rörelsemängd \rightarrow $p = m v$ \leftarrow hastighet
 \leftarrow massa

Kulor:

$$m = 0.03 \text{ kg}$$

$$v = 400 \text{ m/s}$$

$$\rightarrow p = m v = 12 \text{ Ns}$$

Fotboll:

$$m = 0.4 \text{ kg}$$

$$v = 100 \text{ km/h} = 30 \text{ m/s}$$

$$\rightarrow p = m v = 12 \text{ Ns}$$

