

MAVZU: DINAMIKA.DINAMIK TAVSIFLAR

REJA:

- 1.Moddiy nuqtaning harakat dinamikasi
- 2.Jism ilgariqlama harakati dinamikasi
- 3.Tabiyatdagi kuchlarning turlari
- 4.Qattiq jism aylanma harakatining dinamikasi

Литература:

1. Бернштейн Н.А. Физиология движения и активность. М. , 1990
2. Бранков Г. Основы биомеханики. Пер. с болг. М., 1981.
3. Уткин В. Л. – «Биомеханика физических упражнений» Учеб. пособие для студентов фак. физ. Воспитания пед. ин-тов и для ин-тов физ. культуры по спец. № 2114 «Физ. воспитание».— М.: Просвещение, 1989.— 210 с.
4. Донской Д. Д., Зациорский В. М. Биомеханика: Учебник для институтов физической культуры. - М. : Физкультура и спорт, 1979. - 264 с.
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➤ **Inertlilik**-jismning turg'un holatini yoki harakat tezligini yoxud harakat tezligi yo'nalishini o'zgarishiga qarshilik ko'rsatish xususiyati

➤ **Massa**-jism inertliligini miqdor o'lchovi.

Inertlik— jismni o'zining harakat tezligini o'zgarishiga qarshilik ko'satish xususiyati

Massa — jism inertligini miqdor o'lchovi

Nyutonning birinchi qonuni

➤ *jismga boshqa jismlar (tashqi kuchlar) ta'sir etmasa u sanoq tizimiga nisbatan o'zining turg'un holatini saqlaydi yoki tekis va to'g'ri chiziqli harakat qiladi.*

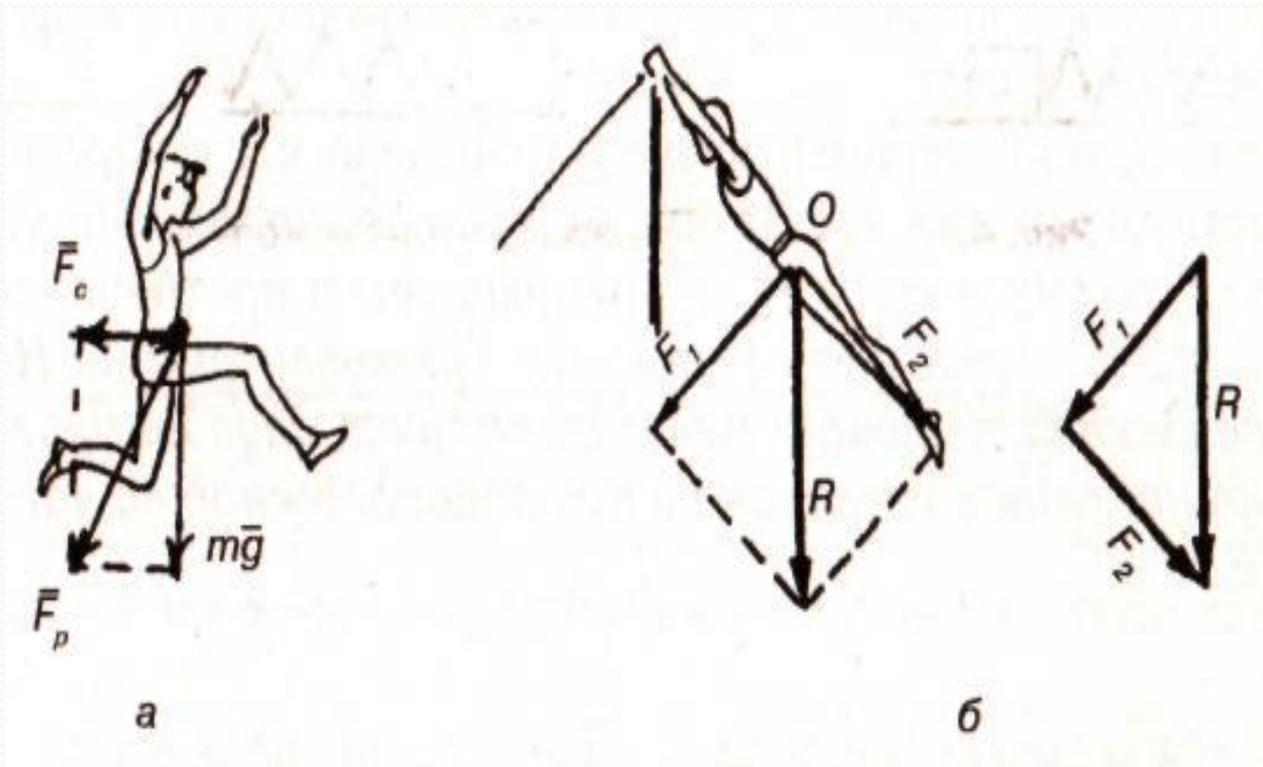
➤ *Bunday sanoq tizimi inertsial tizim deyiladi.*

Nyutoning ikkinchi qonuni

$$F = m \cdot a.$$

$$a = \frac{F}{m}$$

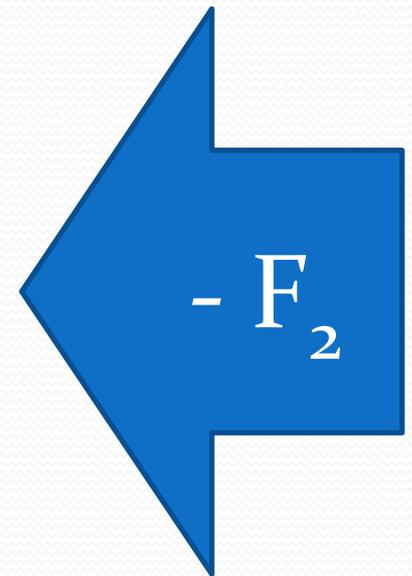
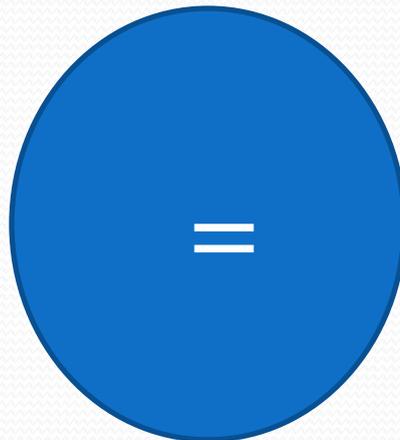
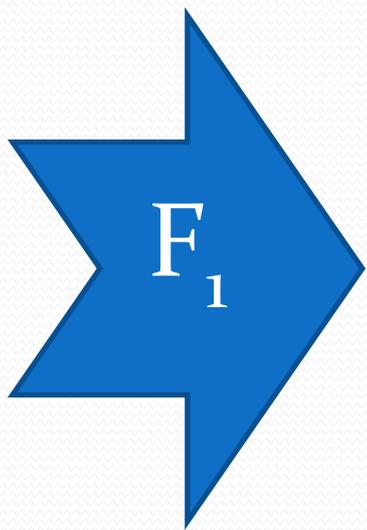
Kuchlarni qo'shish-teng ta'sir etuvchi kuchni topish



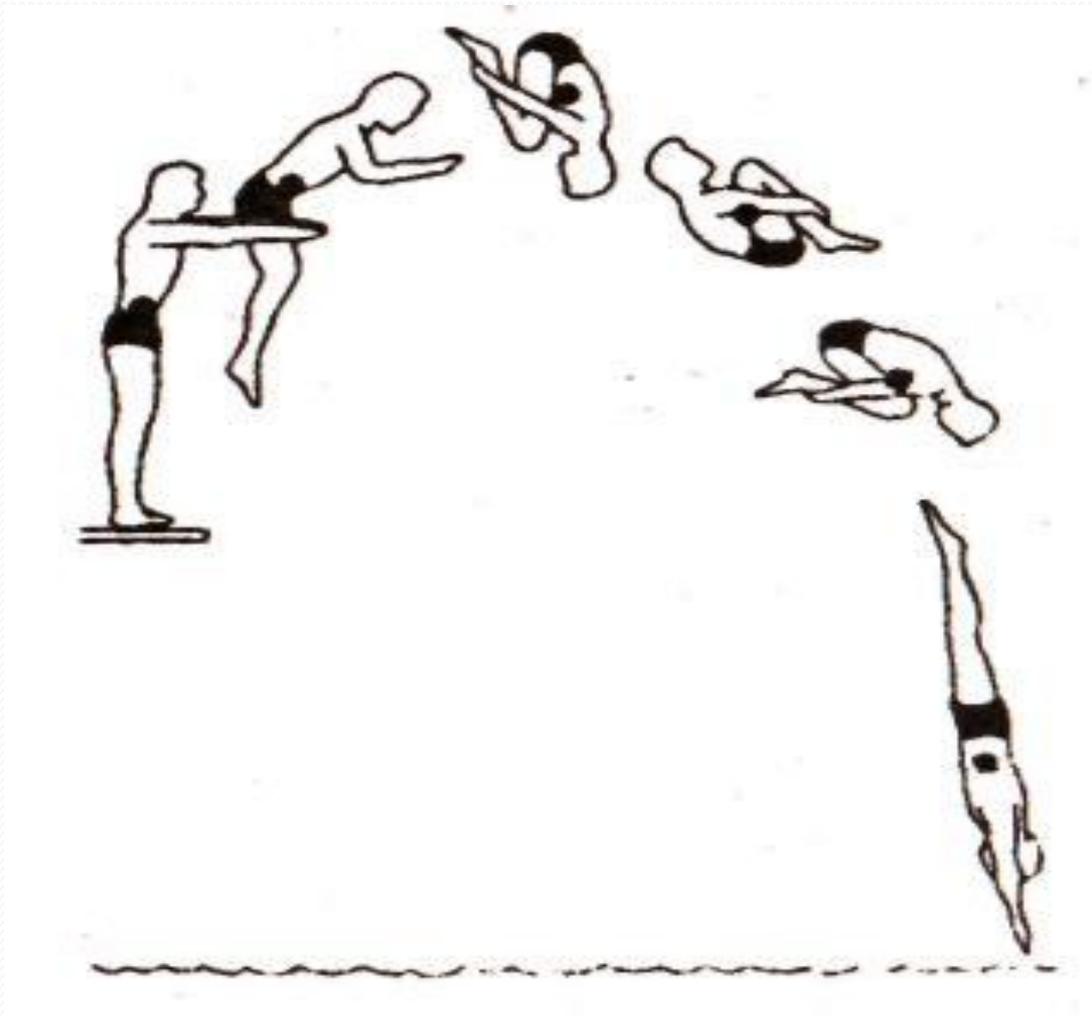
a-sakrash

б-dordagi gimnastikachi

NYUTONNING UCHICHI QONUNI



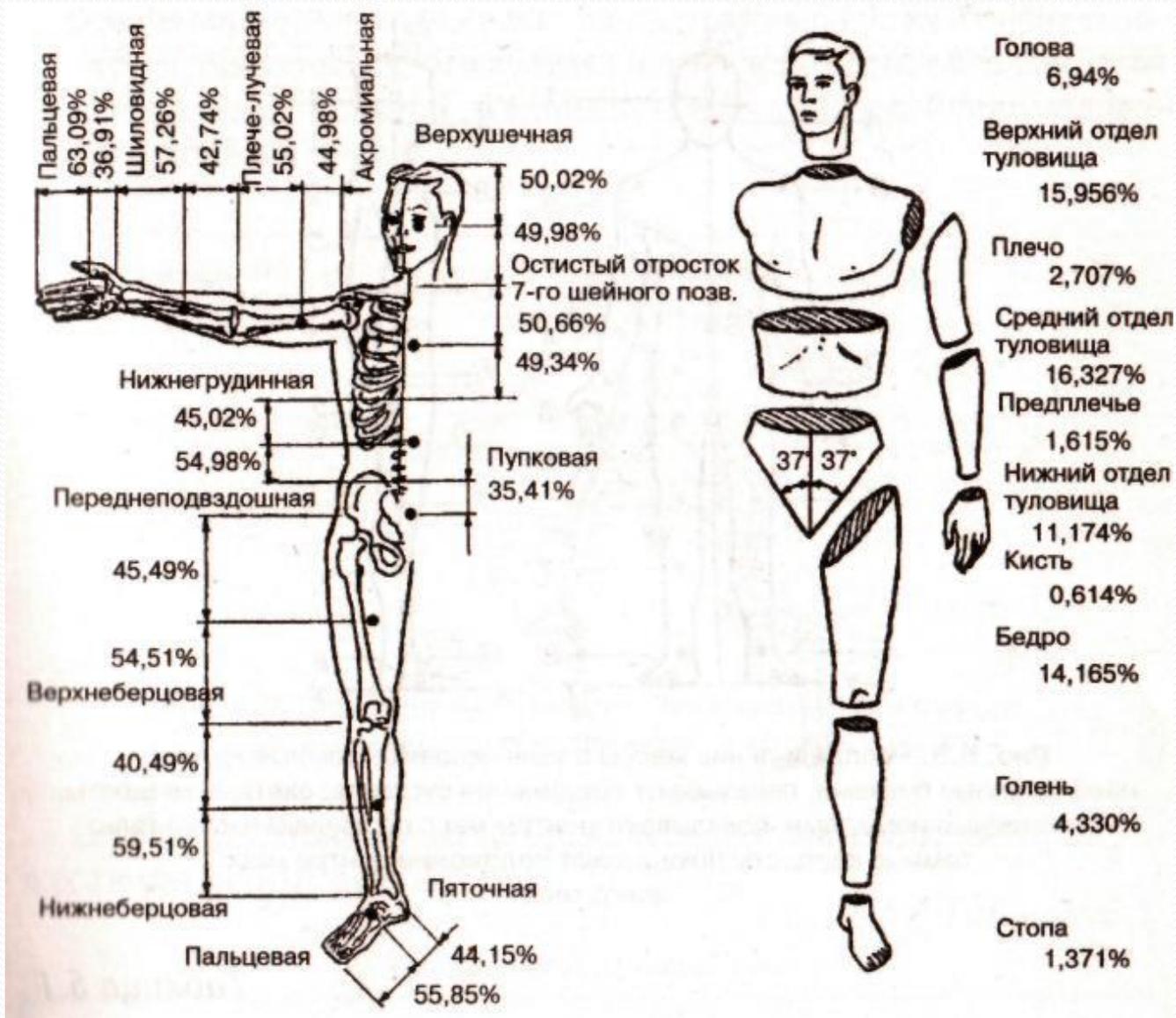
Sportchi og'irlik markazini o'zgarishi



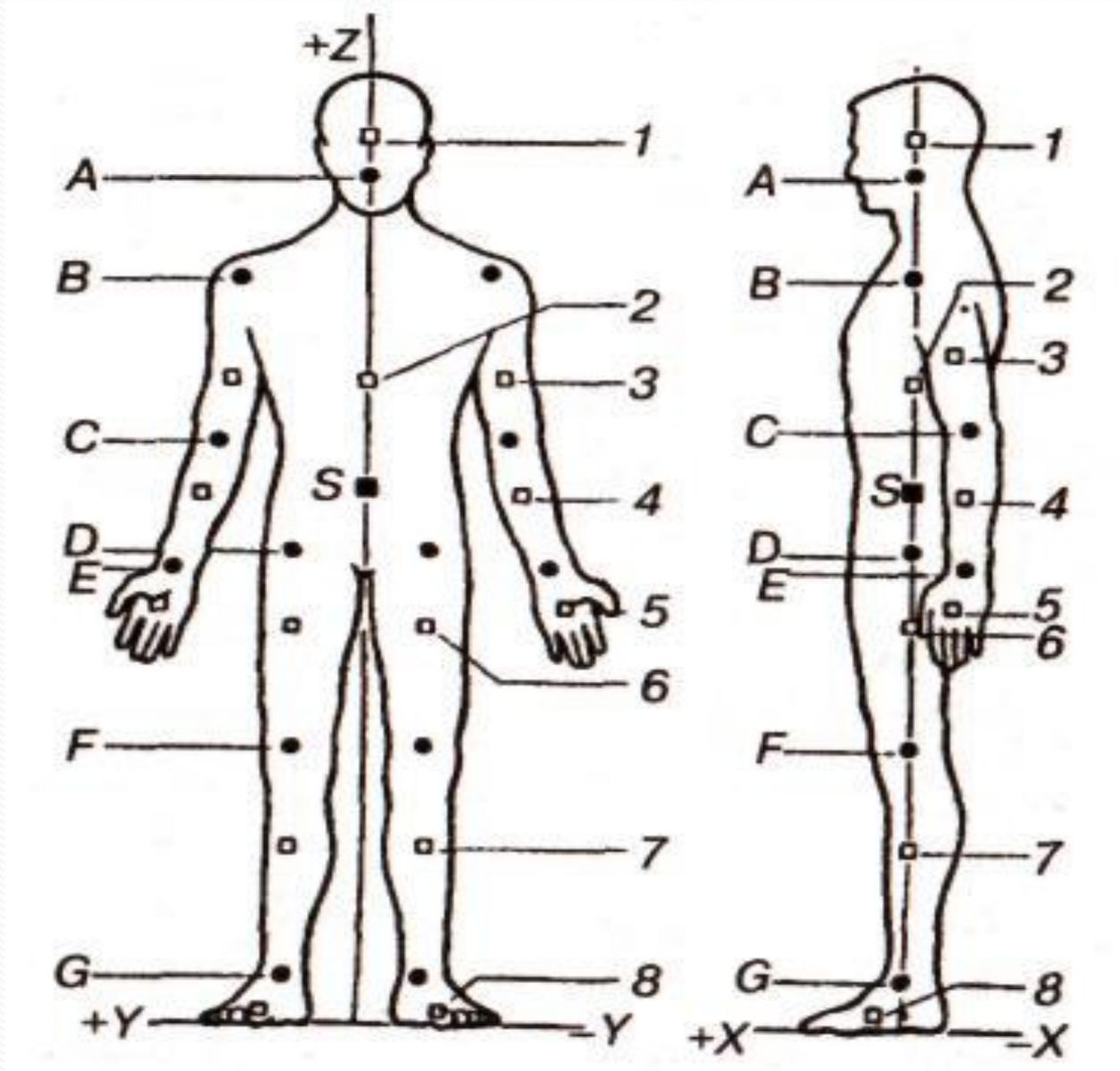
Sportchi og'irlik markazini o'zgarishi



Odam tanasi segmentlari

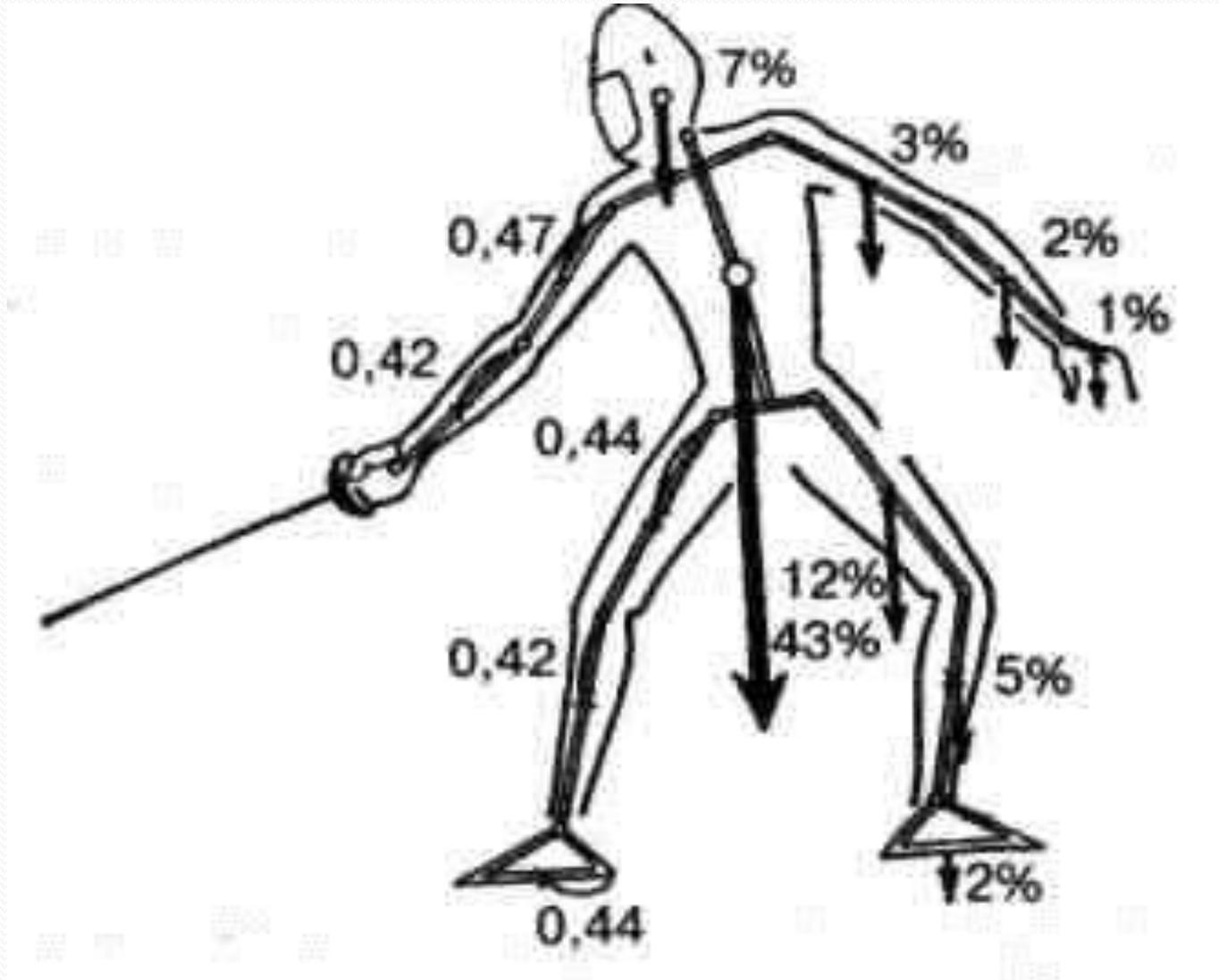


Odam gavdasi massasining taqsimlanishi

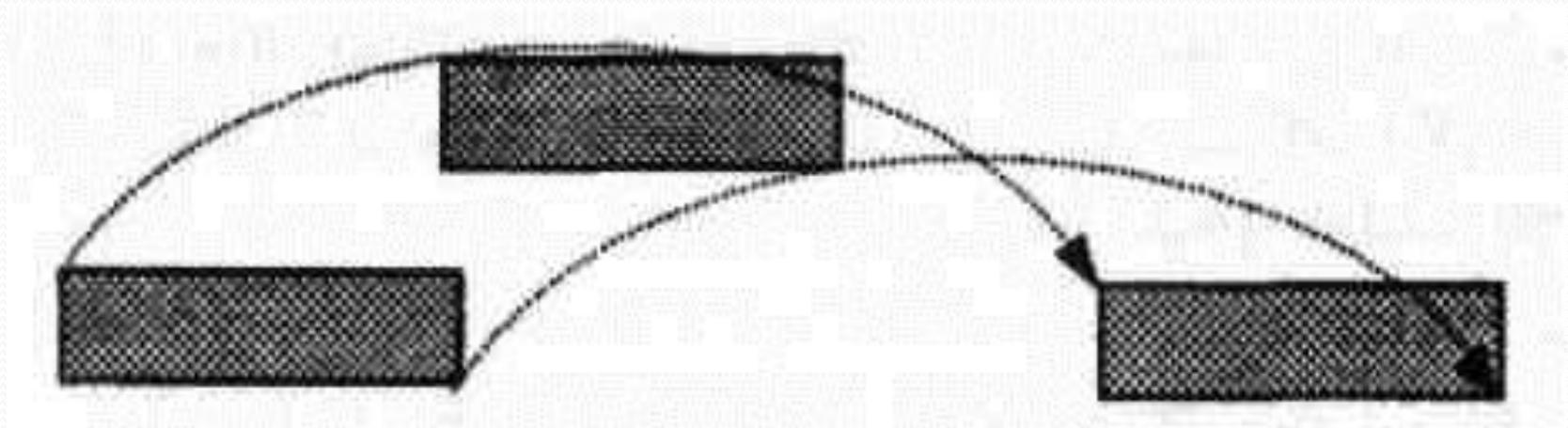


Segment (qism)	Segmentning nisbiy massasi
Bosh	7%
Tana	43%
Yelka	3%
Bilak	2%
Panja	1%
Son	12%
Boldir	5%
Oyoq panja	2%

Odam massasi geometriyasi



Jismning ilgari lanma harakati

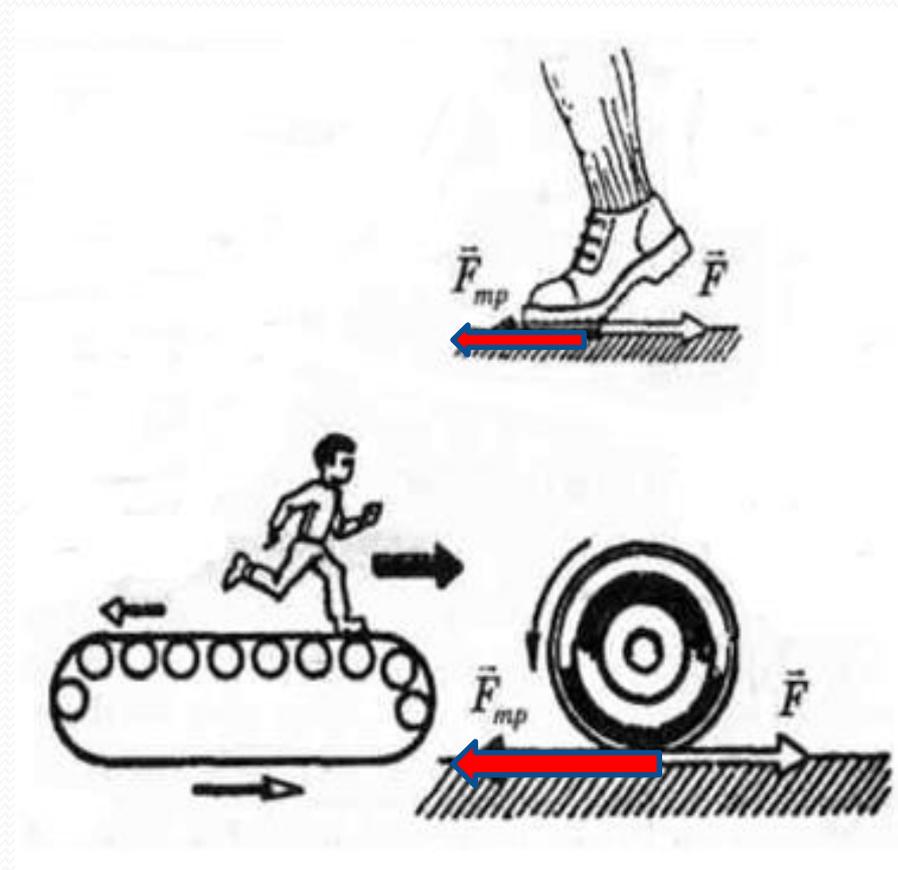
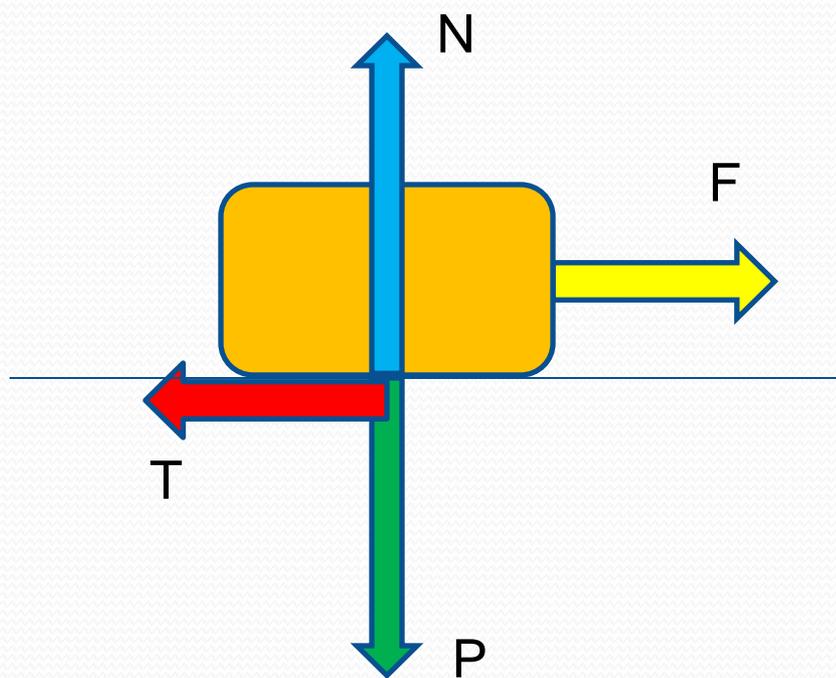


Odamni quvvat sarfi

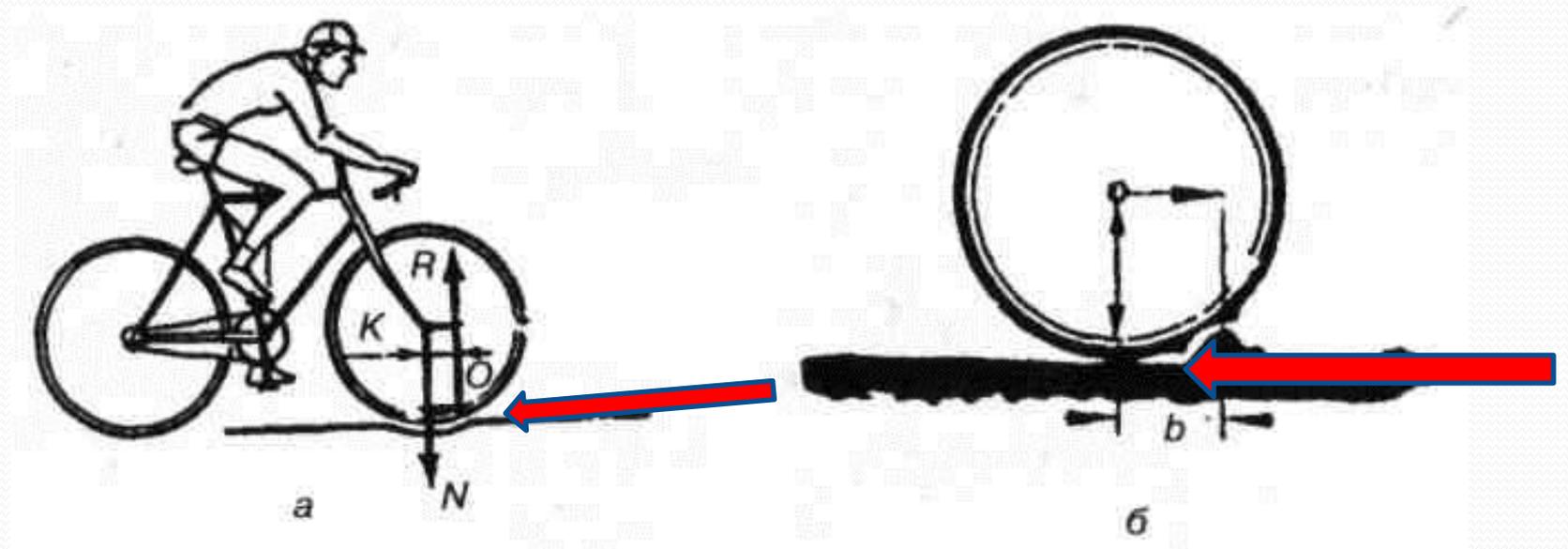
T.r.	Faoliyat turi	Quvvat sarfi , V_T
1	Mashg'ulotlarga tayyorlanish	105-125
2	Amaliy mashg'ulotlar(laboratoriya ishlari)	110—125
3	Ovozsiz o'qish	100
4	Jismoniy mashq	265-380
5	Suzish	550
6	Uxlash	70
7	Tinch yotish	85
8	«Erkin» turish	130
9	Mototsikl boshqarish	160
10	5 km/s tezlikda tekis yo'lda yurish	255-340

Mashq turi	Quvvat sarfi, Vt
Yugirish, 9 km/s	750
Velospedda uchish, tezlik 8,5 km/s	345
Velospedda uchish, tezlik 15 km/s	490
Velospedda uchish, tezlik 20 km	690
Suzish, 10 m/min	250
Suzish, 20 m/min	355
Suzish, 50 m/min	850
Eshkak eshish, 50 m/min	215
Eshkak eshish, 80 m/min	440
Voleybol	265
Futbol	620—930
Basketbol	780

Ishqalanish kuchi



Dumalanish ishqalish kuchi

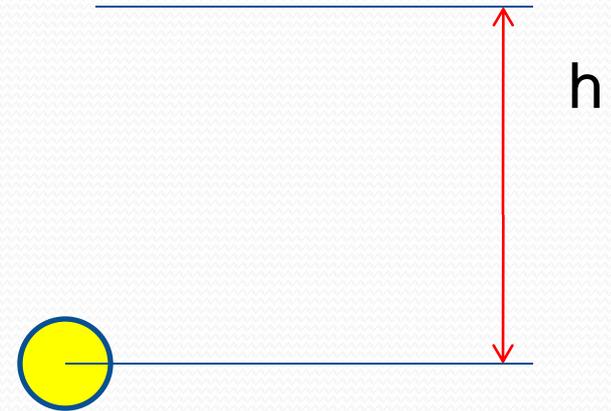


Kuch momenti

F



$$M = \pm F \cdot h .$$



F-kuch , N

h-kuch elkasi, m

