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| **INTERFERENCA:**   * Vsaki točki se seštejeta/interferirajo se odmiki, hitrosti, pospeški * **Razlika razdalj**:△r=N ⬝ג * △r=a ⬝ sinφ = N ⬝ג 🠦neka točka leži na ojačani smeri reda N * φ-KOT v smeri točke glede na simetralo (določa smer točke)  |  |  |  | | --- | --- | --- | | * NALOGA: | N= | a ⬝ sin | | ג | |
| **OPTIČNI INSTRUMENTI:**   * **Fotoaparat:** za bljižne predmete objektiv izvlečemo, za daljne predmete pa uvlečemo  |  |  | | --- | --- | | f | zaslonka s standarnimi vrednostmi | | 2r |  * **Lupa/Povečevalno steklo: ZBIRALNA LEČA**  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | N= | tanβ | = | y/f | **=** | ao |  | N= | ao | | tanα | y/ao | f |  | f | |  |  |  |  |  |  |  |  |  |   Z zdravim očesom vidimo v **razdalji 25cm=ao**   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | tanα1= | P1 |  | tanα2 | | = | P2 | |  |  | | | a | tanα1 | | P1 | |  | | tanα2= | P2 | 🠦🠦 | N= | P2 | = | | tanα2 | | | | a | P1 | tanα1 | | |  * **Dalnogled:**   obe gorišči sta na istem mestu, nista na sredini  dolžina vida je odvisna od premera daljnogleda   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | N= | tanα2 | = | y⬝f1 | = | f1 | | tanα1 | y⬝f2 | f2 |  * **Teleskop:** zrcalni:reflektorji, z lečami:refraktoriji |
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| **OPTIKA OČESA:**  Če hočemo videti sliko jasno mora slika pasti točno na pego  Za bližnje gledanje je leča v očesu raztegnjena, za daljne gledanje je leča sploščena   * **Daljnovidno oko:** leča je pretanka, **f** premalo lomi, ZBIRALNA LEČA-   1/f:lomnost leče [1/f]=1m-1=1doiptrija   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | f= | f1 ⬝ f2 | pozitivna lomnost |  | f= | 1 | + | 1 | | f1 + f2 | f1 | f2 |  * **Kratkovidno oko:** očesna leča je predebela-leča preveč lomi-RAZPRŠILNA LEČA  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | f= | -f1 ⬝ f2 | pozitivna lomnost |  | f= | 1 | + | 1 | | f1 - f2 | f1 | f2 |  * NALOGA:   **Daljnovidnost**:   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | brez očal: | | | 1 | | = | 1 | | **+** | | 1 | | | f | | a | | b | | | z očali: | 1 | + | | 1 | | | = | | 1 | | + | 1 | 1/f1=1/ao-1/a=  **4-**0,33dioptrije |  | | f1 | f | | | ao | | b |   **Kratkovidnost**:   |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | brez očal: | | | 1 | | = | 1 | | **+** | | 1 | | | f | | a | | b | | | z očali: | 1 | + | | 1 | | | = | | 1 | | + | 1 | 1/f1=-1/a |  | | f1 | f | | |  | | b | |
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| **OPTIKA:ukvarja se s preslikavami**   * **Virtualna/Navidezna slika**:nastane s presekom podaljškov korakov, da se jo videti, toda nemoremo je prezrcaliti, je pokončna   **ZRCALA**: odboj, reflekcija   * **Konkavno:**   KS:krivinsko središče, r:krivinski polner, F:gorišče/fokus,  f:goriščna razdalja  SEFERNA ABERACIJA: krogelna zrcala imajo napako-slika je razmazana  ENAČBA ZRCALA:  realna slika nastane s preslikom pravilnih žarkov,slika je  obrnjena,lahko jo prezrcalimo  a:razdalja do predmeta, b:razdalja do slike, p:predmet, S:slika   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | S | = | b | **povečava** | |  | P | a |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  | 1 | = | 1 | **+** | 1 | |  | f | a | b |   **a**:pozitiv.  **b**:pozitiv. za realne, negativ. za virtualne slike  **f**:pozitiv. za zbiralne, negativ. za razpršilne     |  |  |  |  |  | | --- | --- | --- | --- | --- | |  | b | =0 | | | |  | |  |  | | | |  | S | = | b | | | **=** |  | | | | P | a | | | |  |  | |  | | | |  |  | |   daleč je slika v gorišču, tam zdrkne v neskončnost-je  neskončno velika,znoptraj gorišča je b negativ.   * **Konveksno zrcalo:**   slika je virtualna, pokončna-vidna je le med goriščem in temenom  **f:** negativ.(se razprči)  **b:** negativ.(slika je virtualna)  **a:**pozitiv.  **LEČA:** lom, reflekcija, leče imajo 2 gorišči(razdeljeni na enaki razdalji)   * **Konveksne leče:**   slika je realna **f:**negativ., **b:**pozitiv./negativ.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 1 | = | 1 | **+** | 1 | | f | a | b |  * **Konkavna leča:**   **f:**negativ., **b.**negativ., **a:**pozitiv. |