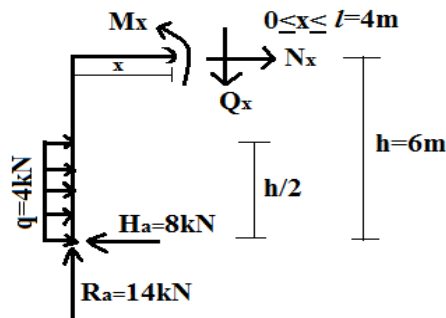
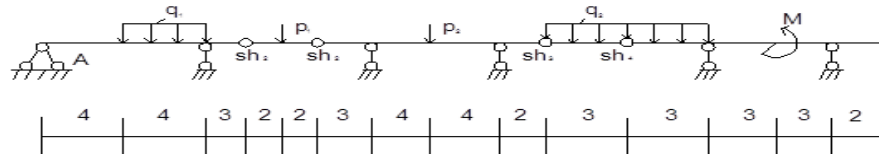


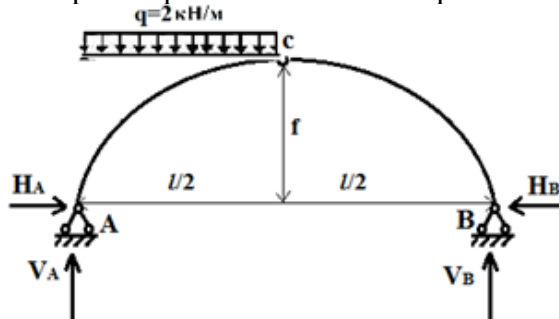
1. Qurilish mexanikasi fanining moh'iyati va usullari
2. Hisobiy sxemani tanlash nimalarga bog'liq?
3. Inshootlar qanday klassifikatsiyalanadi?
4. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



5. Berilgen ko'p aralıqlı balkanın' qabatlar sxeması du'zilsin?

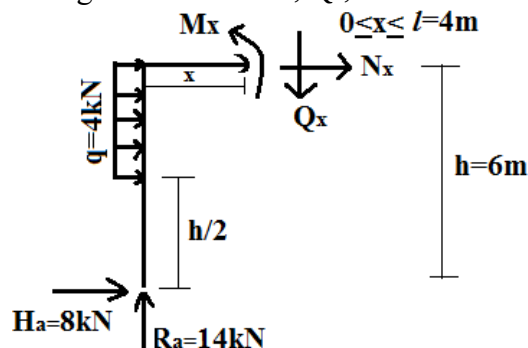


6. Qurilish mexanikasi fanining qisqacha rivojlanish tarixi va boshqa fanlar bilan uzviy bog'liqligi
7. Inshootning h'isobiy sxemasi deganda nimani tushuniladi?
8. Tayanchlar turlari?
9. Qanday sistemalar geometrik o'zgaruvchan sistemalar deb ataladi?
10. Zo'riqishning tasir chizig'i nima?
11. Ko'p oraliqli sharnirli statik aniq balkalar deb qaysi sistemalarga aytiladi?

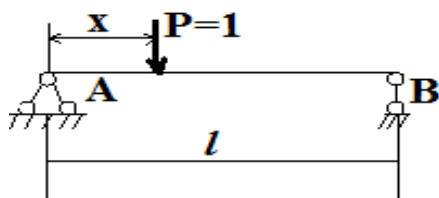


12. Berilgen arkanın' vertikal reaksiyası tabılsın? $f=3m$, $l=4m$.

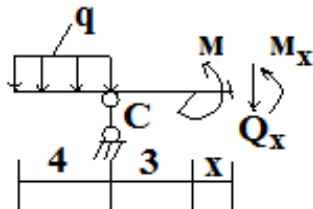
13. Berilgen ramanın' M_x , Q_x , N_x - ku'shleri tabılsın?



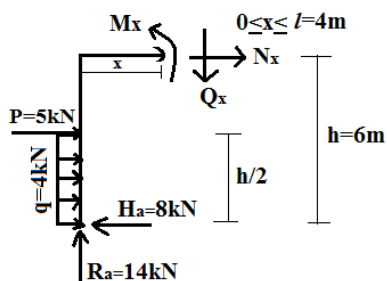
14. Sharnirli balkalar elementlari o'zaro bog'lanish sxemasi (qavatlar sxemasi) nima?
15. Tayanch reaksiyasi tasir chizig'i qanday quriladi?
16. Uch sharnirli arka kesimidagi zo'riqishlar qanday aniqlanadi?
17. Berilgen balkaning' birlik ku'sh na'tiyjesinde tayanish reaksiyalarining' ta'sir sızıqların tabın'?



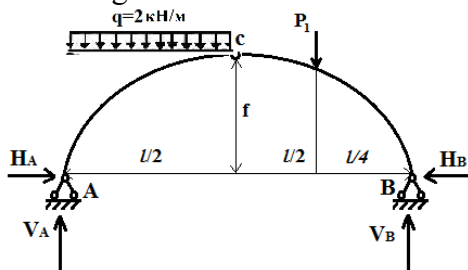
18. Berilgen balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabin'? $0 \leq x \leq 3m$



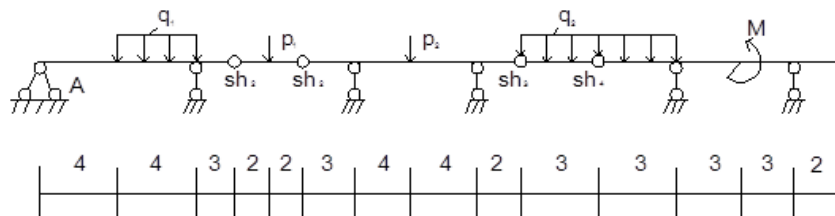
19. Eguvchi momentning tasir chizig'i qanday quriladi?
 20. Qanday sistemalar uch sharnirli sistemalar deb ataladi?
 21. Sharnirli balkalar elementlari o'zaro bog'lanish sxemasi (qavatlar sxemasi) nima?
 22. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



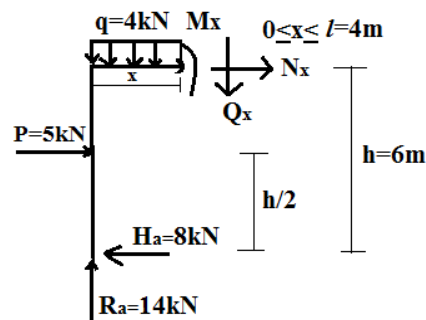
23. Berilgen arkanin' vertikal reaksiyalari tabilsin? $f=3m$, $l=4m$.



24. Ko'p oraliqli sharnirli statik aniq balkalar deb qaysi sistemalarga aytiladi?
 25. Oraliq sharnirlarni joylashtirish va soniga qanday talablar qo'yiladi?
 26. Tasir chizig'i orqali zo'riqishlar qanday aniqlanadi?
 27. 4 Berilgen ko'p araliqli balkanin' qa'legen aspa balkanin' tayanish reaksiyasi tabilsin?



28. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?

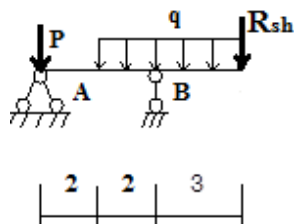


29. Ko'p oraliqli sharnirli balkalarda zo'riqishlarning tasir chiziqlari qanday quriladi?

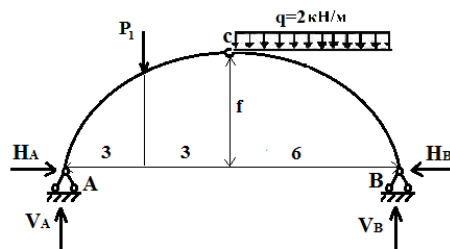
30. Qanday sistemalar uch sharnirli sistemalar deb ataladi?

31. Tekis sterjenli sistemalarda ko'chishlar asosiy ko'rinishlarini ayting?

33. Berilgen balkaning tayanish reaksiyalarini aniqlan? $P=4\text{kN}$, $q=5\text{kN/m}$, $R_{sh}=-6\text{kN}$.



35. Berilgen arkaning gorizontol tayanish reaksiyalarini ten'ligin da'lillen? $R=4\text{kN}$, $V_A=8\text{kN}$.

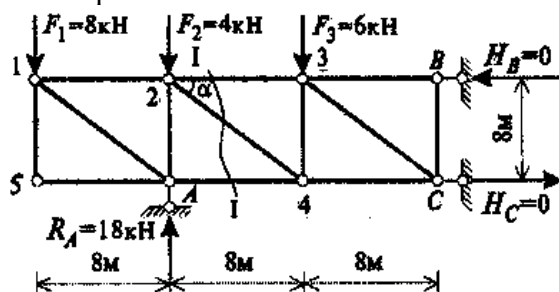


36. Uch sharnirli arka uchun zo'riqishlar tasir chiziqlari qanday quriladi?

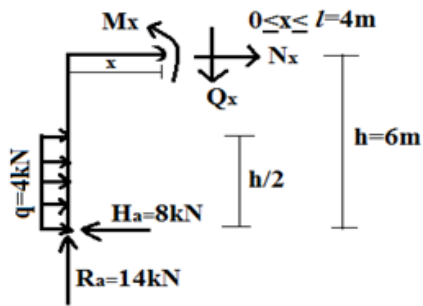
37. Qanday sistemalar fermalar deb ataladi?

38. Ko'ndalang kuchning tasir chizig'i qanday quriladi?

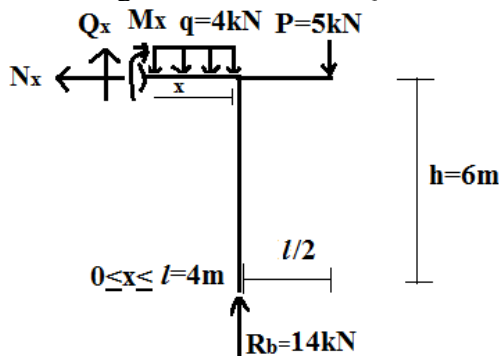
39. Berilgen fermaning 1-1 kesimi boyinsha sterjenlerindagi ishki ku'shleri aniqlansin?



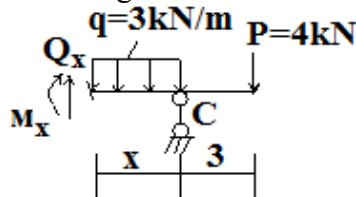
40. Berilgen ramaning M_x , Q_x , N_x - ku'shleri tabilsin?



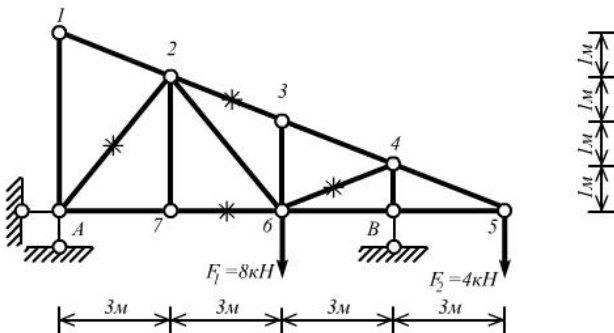
41. Ferma sterjenlaridagi zo'riqishlarni moment nuqta usuli bilan aniqlashning moh'iyati nimada?
42. Yuklarning qanday turlari mavjud?
43. Tasir chizig'i orqali zo'riqishlar qanday aniqlanadi?
44. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



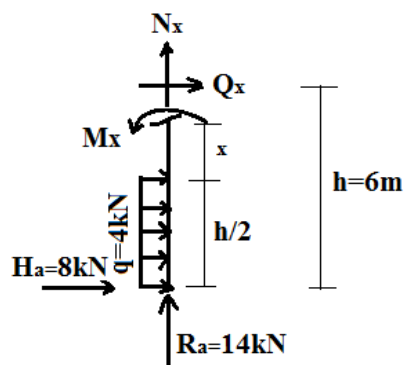
45. Berilgen balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabin'? $0 \leq x \leq 4m$



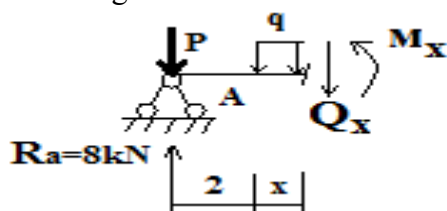
46. Ferma sterjenlaridagi zo'riqishlar tasir chiziqlari qanday quriladi?
47. Ko'chish deb nimaga aytiladi?
48. Fermalar qanday elementlardan tashkil topgan?
49. Berilgen fermanin' tayanish reaksiyalari tabilsin?



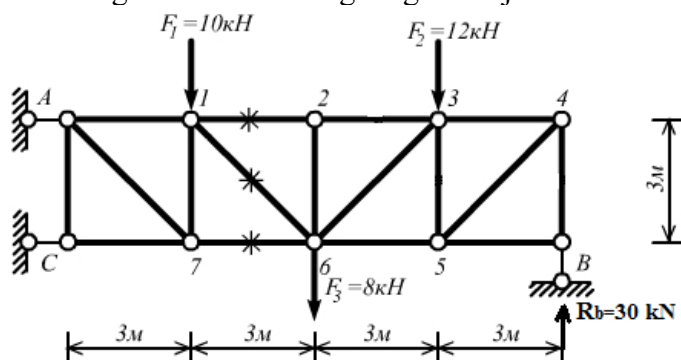
50. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



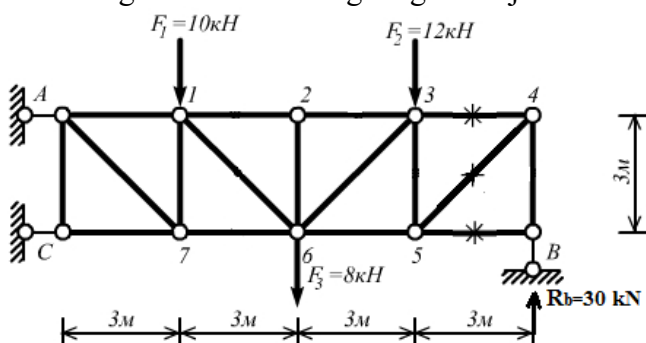
51. Ko'chishlar h'aqida tushuncha, ko'chishlar va ularni belgilash
 52. Ko'chishlarni aniqlashning umumiy formulasini ёzing?
 53. Ko'p oraliqli balkalarni qo'zg'almas yuklar tasiriga h'isoblash.
 54. Berilgen balkanin' ishki ku'shlerin aniqlan'? $P=4\text{kN}$, $q=5\text{kN/m}$, $0 \leq x \leq 3\text{m}$.



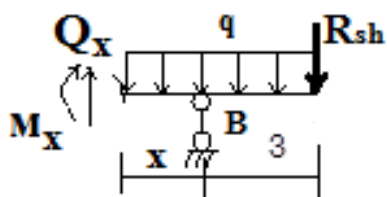
55. Berilgen fermanin' belgilengen sterjenlerinin' ishki ku'shleri aniqlansin?



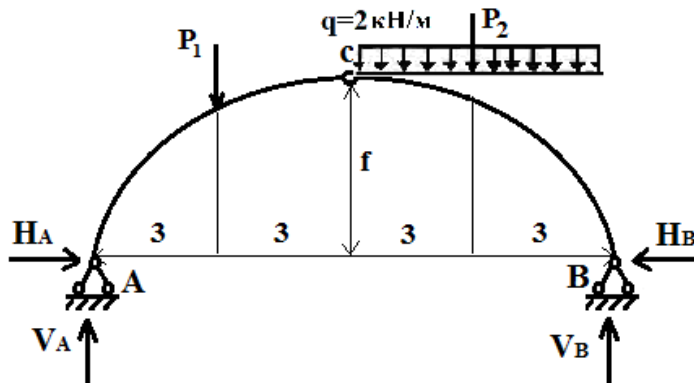
56. Ko'chishning musbat va manfiy qiymatlari nimalarni anglatadi?
 57. Ichki kuchlarning bajargan ishi h'aqida?
 58. Harakatlanuvchi yuklar va tasir chiziqlari h'aqida tushuncha
 59. Berilgen fermanin' belgilengen sterjenlerinin' ishki ku'shleri aniqlansin?



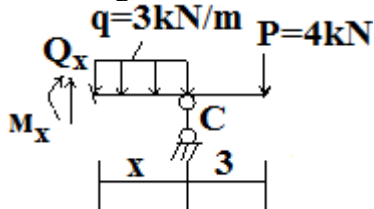
60. Berilgen balkanin' ishki ku'shlerin aniqlan'? $R_{sh}=-6\text{kN}$, $q=5\text{kN/m}$, $0 \leq x \leq 2\text{m}$.



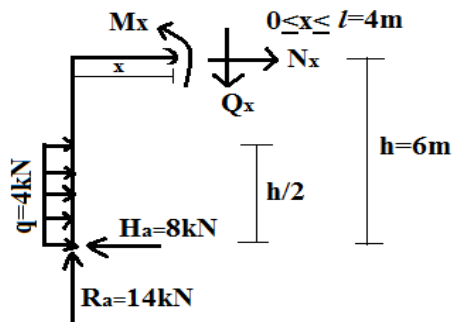
61. Yuklarning qanday turlari mavjud?
62. Qanday sistemalar geometrik o'zgarmas sistemalar deb ataladi?
63. İzlanatgan ko'chish yo'nalishida qo'yilgan qaysi birlik kuch h'ar qaysi ko'rinishdagi ko'chishga mos keladi?
64. Berilgan arkanin' qa'legen tayanishindag'ı reaksiya ku'shleri tabılsın? $R_1=4$ kN, $R_2=5$ kN, $f=4$ m.



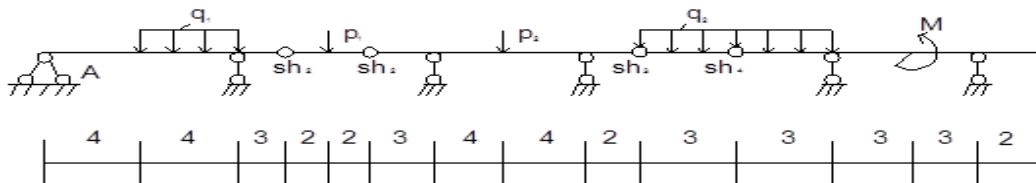
65. Berilgan balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabın'? $0 \leq x \leq 4$ m



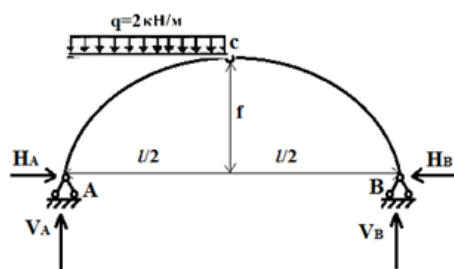
66. Tashqi kuchlarning bajargan ishi h'aqida?
67. Konsol balkada zo'riqishlarning tasir chiziqlari qanday quriladi?
68. Ferma sterjenlaridagi zo'riqishlarni proektsiyalash usuli bilan aniqlashning moh'iyati nimada?
69. Berilgan ramanin' M_x , Q_x , N_x - ku'shleri tabılsın?



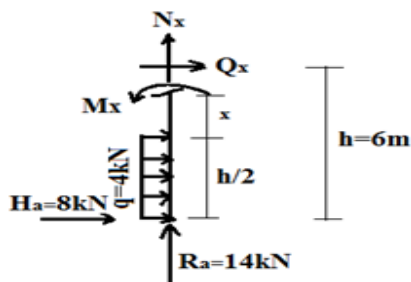
70. Berilgan ko'p aralıqlı balkanin' qabatlar sxeması du'zilsin?



71. Ferma sterjenlaridagi zo'riqishlarni tugunlarni ajratish usuli bilan aniqlashning moh'iyati nimada?
72. Tasir chiziqlari yordamida zo'riqishlarni aniqlash.
73. Qurilish mexanikasi fanining moh'iyati va usullari.
74. Berilgan arkanin' gorizontaı reaksiyası tabılsın? $f=3$ m, $l=4$ m.



76. Berilgan ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?

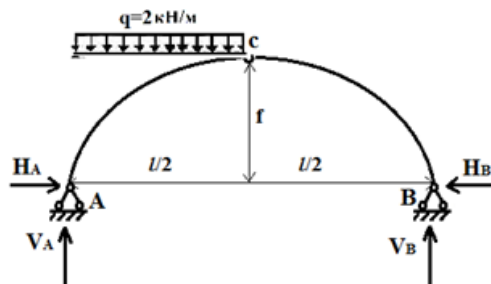


77. Qurilish mexanikasi fanining qisqacha rivojlanish tarixi va boshqa fanlar bilan uzviy bog'liqligi.

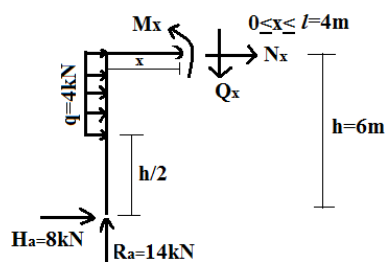
78. Inshootlar geometrik strukturasining analizi.

79. Harakatlanuvchi yuklar va tasir chiziqlari h'aqida tushuncha.

80. Berilgen arkanin' vertikal reaksiyasi tabilsin? $f=3m$, $l=4m$.



81. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?

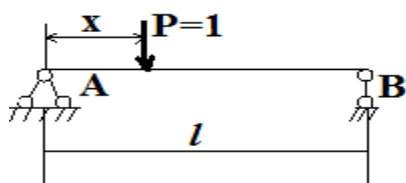


82. Tayanich reaksiyalarning tasir chizig'i.

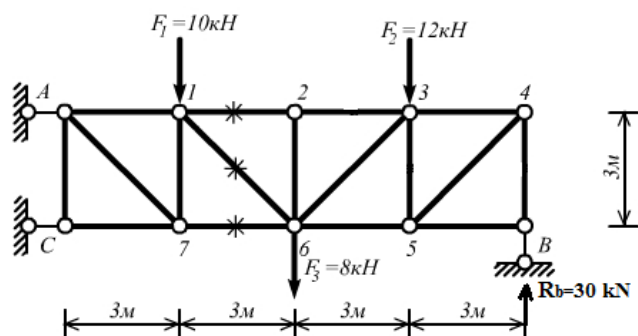
83. Ko'p oraliqli balkalarni qo'zg'almas yuklar tasiriga h'isoblash.

84. Inshootlar va ularning h'isoblash sxemalari.

85. Berilgen balkanin' birlik ku'sh na'tiyjesinde tayanish reaksiyalarinin' ta'sir sızıqlarin tabin'?



86. Berilgen fermanin' belgilengen sterjenlerinin' ishki ku'shleri aniqlansin?



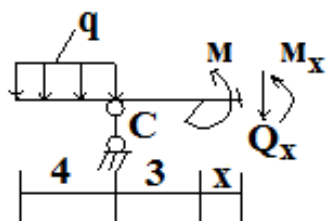
87. Tayanchlar va ularning turlari.

88. Tashqi yuklar va ularning inshootga tasiri.

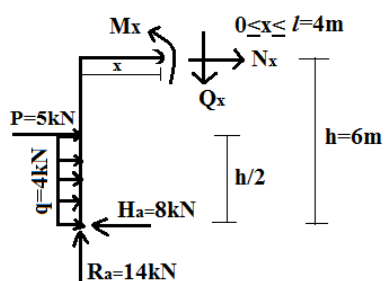
89. İnshootlar h'isoblash sxemalarining kinematik analizi.

91. Berilgen balkanın' kese ku'sh h'a'm iyildirio'shi momentin tabın'?

$$0 \leq x \leq 3m$$



93. Berilgen ramanın' M_x , Q_x , N_x - ku'shleri tabılsın?

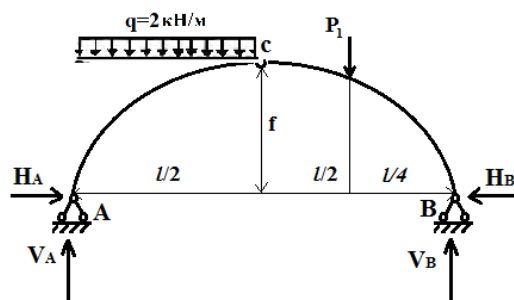


94. Oddiy va konsol balkalarning biror kesimi uchun ichki zo'riqishlarning tasir chizig'ini qurish.

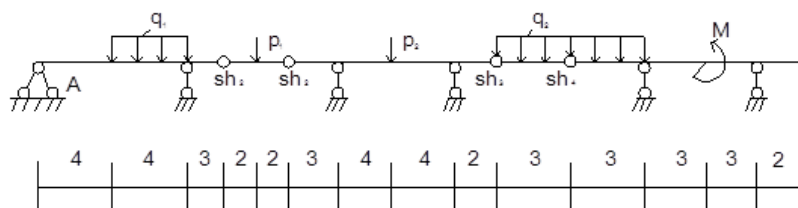
95. Tugunlar orqali yuk uzatilganda tasir chiziqlarni qurish.

96. Tasir chiziqlari yordamida zo'riqishlarni aniqlash.

97. Berilgen arkanın' vertikal reaksiyalari tabılsın? $f=3m$, $l=4m$.



98. Berilgen ko'p aralıqlı balkanın' qa'legen aspa balkanın' tayanış reaksiyası tabılsın?

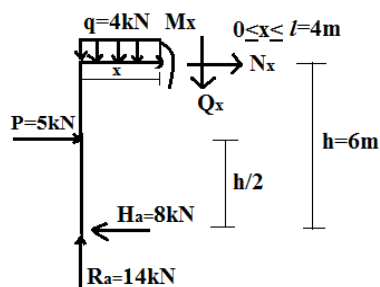


99. Ko'p oralikli statik aniq balkalar uchun qavatlararo sxemalarini qurish.

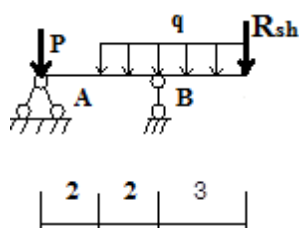
100. Ferma sterjenlari uchun tasir chiziqlarini qurish.

101. Tasir chiziqlari orqali sterjenlardagi zo'riqish kuchlarini aniqlash.

102. Berilgen ramanın' M_x , Q_x , N_x - ku'shleri tabılsın?



103. Berilgen balkanın' tayanış reaksiyalarin anıqlan'? $P=4\text{kN}$, $q=5\text{kN/m}$, $R_{sh}=-6\text{kN}$.

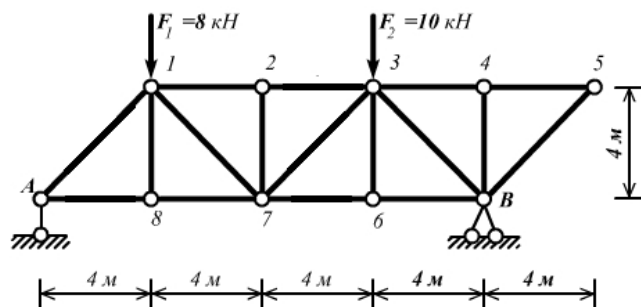


104. Uch sharnirli sistemalarda analitik usulda eguvchi moment, ko'ndalang va bo'ylama kuchlarni aniqlash.

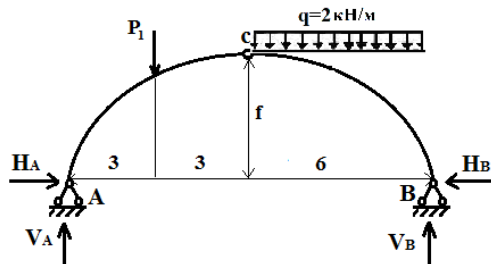
105. Ferma sterjenlarining zo'riqish kuchlarini aniqlash.

106. Uch sharnirli arkalarini qo'zg'almas yuklar tasiriga h'isoblash.

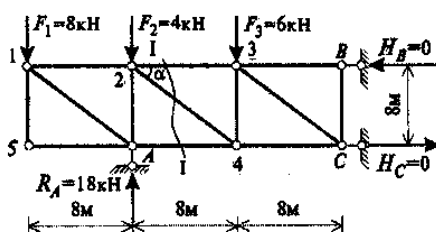
107. Berilgen fermanın' tayanış reaksiyalari tabılsın?



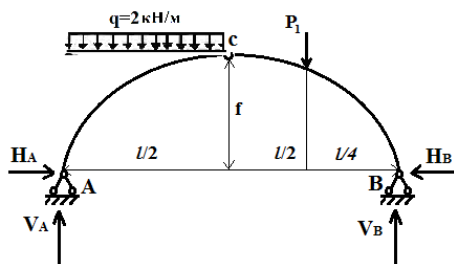
108. Berilgan arkanin' gorizontall tayanish reaksiyalarinin' ten'ligin da'lillen'? $R=4\text{kN}$, $V_A=8\text{kN}$.



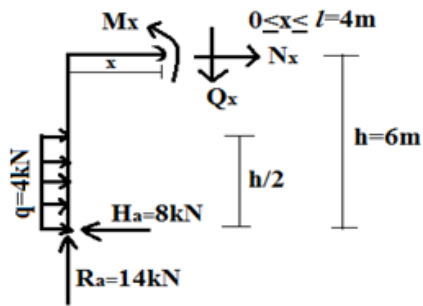
109. Uch sharnirli arkalarini ichki zo'riqish kuchlarining tasir chiziqlarini qurish.
 110. Tasir chiziqlari orqali uch sharnirli sistemalarni h'isoblash.
 111. Uch sharnirli sistemalarda normal kuchlarlanishlarni yadro momentlari orqali aniqlash.
 : 113. Berilgan fermanin' 1-1 kesimi boyinsha sterjenlerindeki ishki ku'shleri aniqlansin?



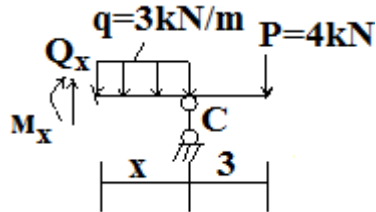
- : 115. Berilgan arkanin' vertikal reaksiyalari tabilsin? $f=3\text{m}$, $l=4\text{m}$.



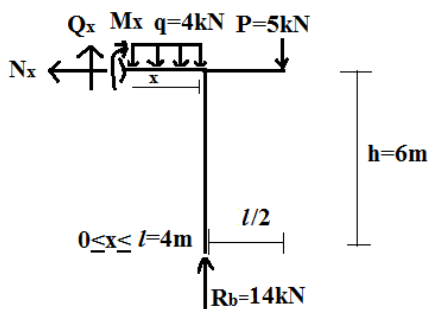
116. Ko'p oraliqli balkalarni tasir chiziqlari orqali h'isoblash.
 117. Harakatlanuvchi yuklarning noqulay vaziyatini aniqlash.
 118. Fermalar h'aqida umumiy tushuncha.
 119. Berilgan ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



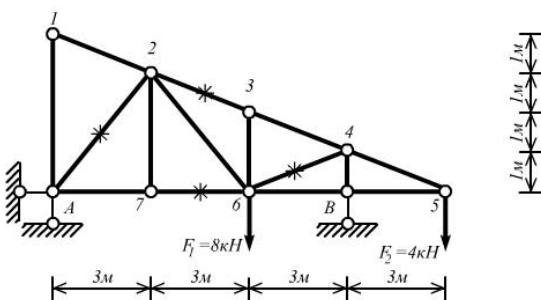
120. Berilgen balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabin'?
 $0 \leq x \leq 4m$



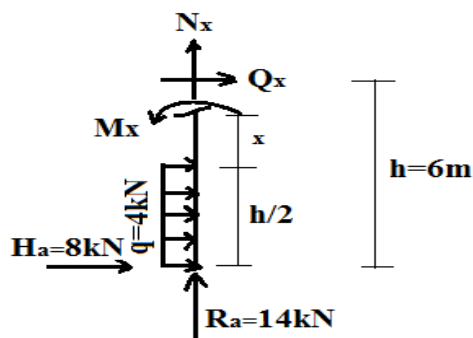
121. Fermalarning turlari.
 122. Statik aniq fermalarni qo'zg'almas yuklar tasiriga h'isoblash.
 123. Uch sharnirli ramalarni h'isoblash.
 124. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



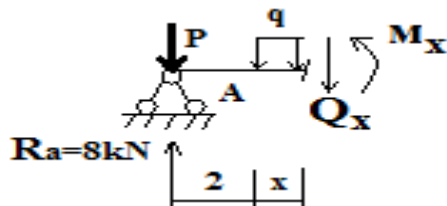
125. Berilgen fermanin' tayanish reaksiyalari tabilsin?



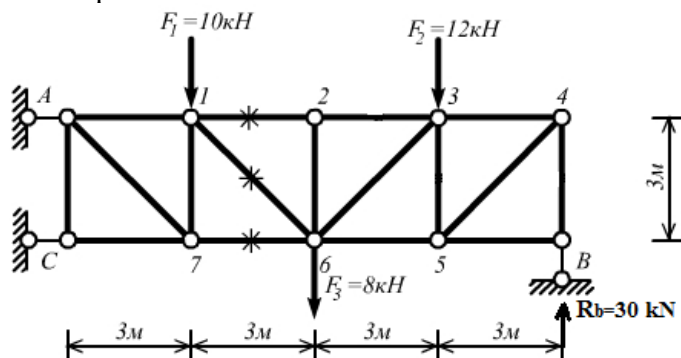
126. Uch sharnirli arkasimon fermalarni h'isoblash.
 127. Ko'chishlar h'aqida tushuncha, ko'chishlar va ularni belgilash.
 128. Tashqi kuchlarning bajargan ishi, ichki kuchlarning bajargan ishi.
 129. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



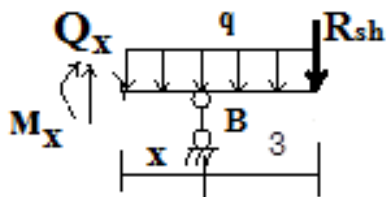
130. Berilgen balkaning' ishki ku'shlerin aniqlan'? $P=4\text{kN}$, $q=5\text{kN/m}$, $0 \leq x \leq 3\text{m}$.



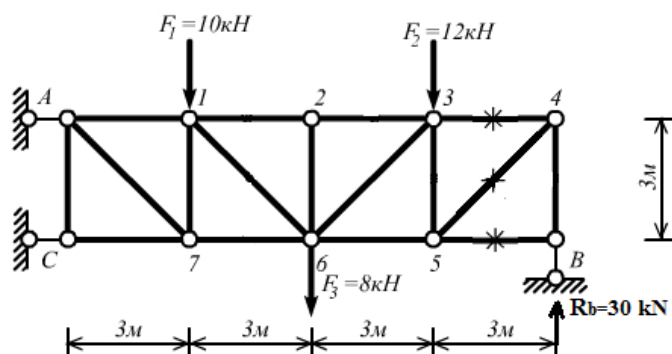
131. Qurilish mexanikasi fanining moh'iyati va usullari
 132. Hisobiy sxemani tanlash nimalarga bog'liq?
 133. Inshootlar qanday klassifikatsiyalanadi?
 134. Berilgen fermaning' belgilengen sterjenlerinin' ishki ku'shleri aniqlansin?



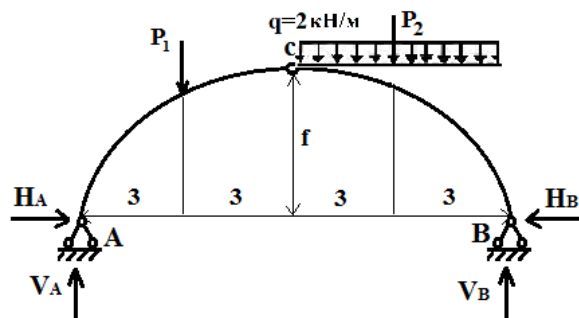
135. Berilgen balkaning' ishki ku'shlerin aniqlan'? $R_{sh}=-6\text{kN}$, $q=5\text{kN/m}$, $0 \leq x \leq 2\text{m}$.



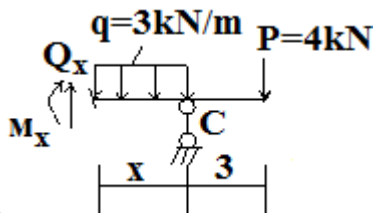
136. Qurilish mexanikasi fanining qisqacha rivojlanish tarixi va boshqa fanlar bilan uzviy bog'liqligi
 137. Inshootning h'isobiy sxemasi deganda nimani tushuniladi?
 138. Tayanchlar turlari?
 139. Berilgen fermaning' belgilengen sterjenlerinin' ishki ku'shleri aniqlansin?



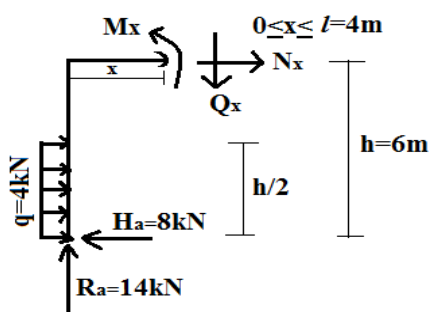
140. Berilgen arkanin' qa'legen tayanishindagi reaksiya ku'shleri tabilsin?
 $R_1 = 4 \text{ kN}$, $R_2 = 5 \text{ kN}$, $f = 4 \text{ m}$.



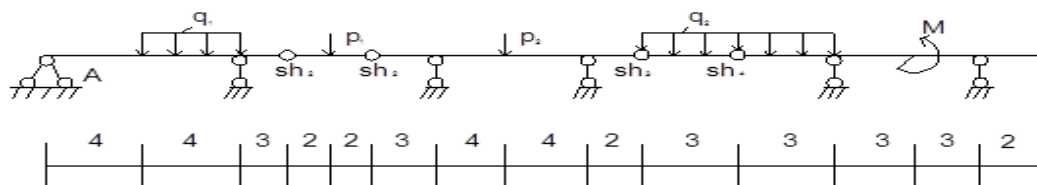
141. Qanday sistemalar geometrik o'zgaruvchan sistemalar deb ataladi?
 142. Zo'riqishning tasir chizig'i nima?
 143. Ko'p oraliqli sharnirli statik aniq balkalar deb qaysi sistemalarga aytiladi?
 145. Berilgen balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabin'?
 $0 \leq x \leq 4 \text{ m}$



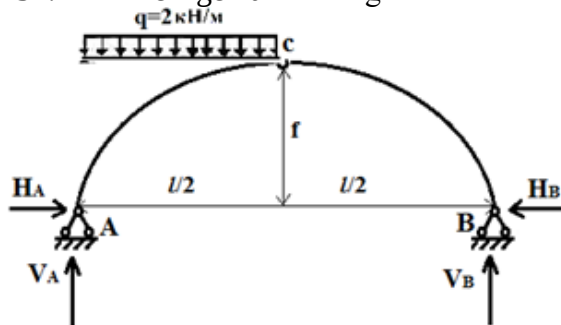
147. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



148. Sharnirli balkalar elementlari o'zaro bog'lanish sxemasi (qavatlar sxemasi) nima?
 149. Tayanch reaksiyasi tasir chizig'i qanday quriladi?
 150. Uch sharnirli arka kesimidagi zo'riqishlar qanday aniqlanadi?
 151. Berilgen ko'p araliqli balkanin' qavatlar sxemasi du'zilsin?



152. Berilgen arkanın' gorizontali reaktsiyası tabılsın? $f=3\text{m}$, $l=4\text{m}$.

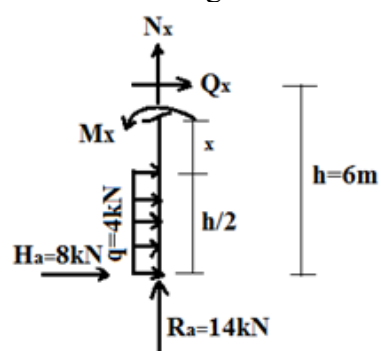


153. Eguvchi momentning tasir chizig'i qanday quriladi?

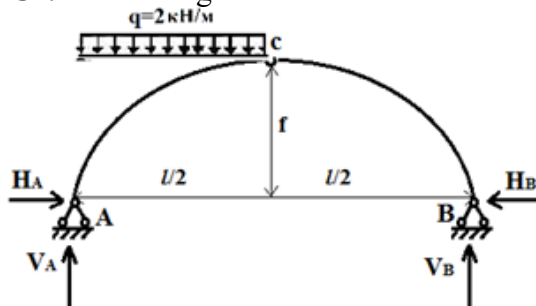
154. Qanday sistemalar uch sharnirli sistemalar deb ataladi?

155. Sharnirli balkalar elementlari o'zaro bog'lanish sxemasi (qavatlar sxemasi) nima?

156. Berilgen ramanın' M_x , Q_x , N_x - ku'shleri tabılsın?



157. Berilgen arkanın' vertikal reaktsiyası tabılsın? $f=3\text{m}$, $l=4\text{m}$.

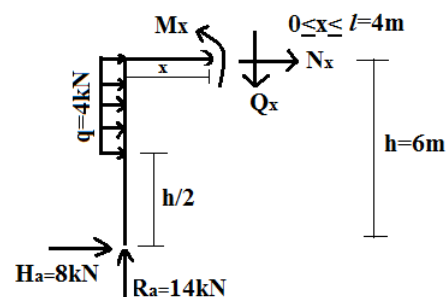


158. Ko'p oraliqli sharnirli statik aniq balkalar deb qaysi sistemalar ga aytiladi?

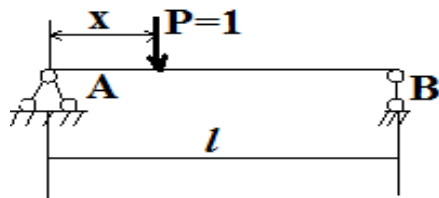
159. Oraliq sharnirlarni joylashtirish va soniga qanday talablar qo'yiladi?

160. Tasir chizig'i orqali zo'riqishlar qanday aniqlanadi?

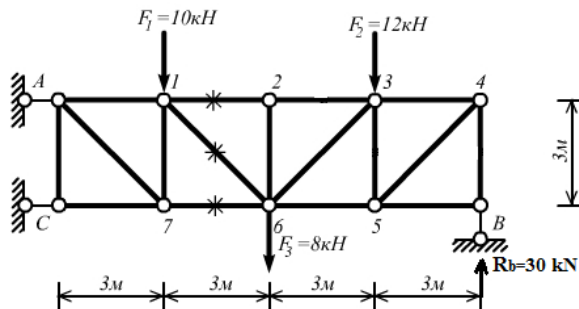
162. 4. Berilgen ramanın' M_x , Q_x , N_x - ku'shleri tabılsın?



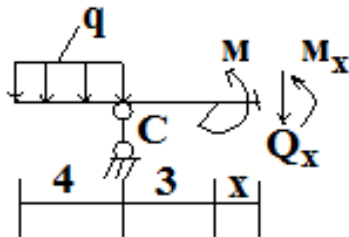
164. Berilgen balkanın' birlik ku'sh na'tiyjesinde tayanish reaktsiyalarının' ta'sir sızıqların tabın'?



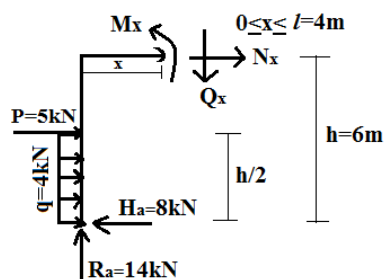
165. Ko'p oraliqli sharnirli balkalarda zo'riqishlarning tasir chiziqlari qanday quriladi?
 166. Qanday sistemalar uch sharnirli sistemalar deb ataladi?
 167. Tekis sterjenli sistemalarda ko'chishlar asosiy ko'rinishlarini ayting?
 : 169. 4. Berilgen fermanin' belgilengen sterjenlerinin' ishki ku'shleri aniqlansin?



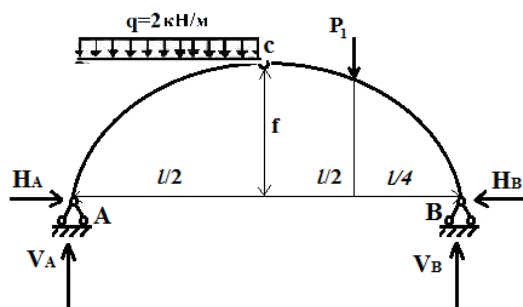
- : 171. Berilgen balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabin'?
 $0 \leq x \leq 3m$



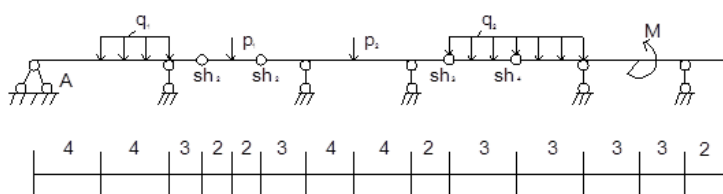
172. Uch sharnirli arka uchun zo'riqishlar tasir chiziqlari qanday quriladi?
 173. Qanday sistemalar fermalar deb ataladi?
 174. Ko'ndalang kuchning tasir chizig'i qanday quriladi?
 : 176. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



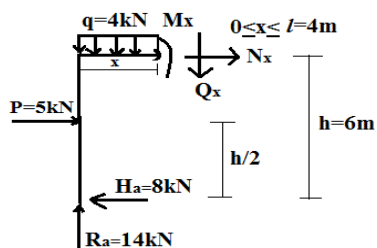
178. Berilgen arkanin' vertikal reaksiyalari tabilsin? $f=3m$, $l=4m$.



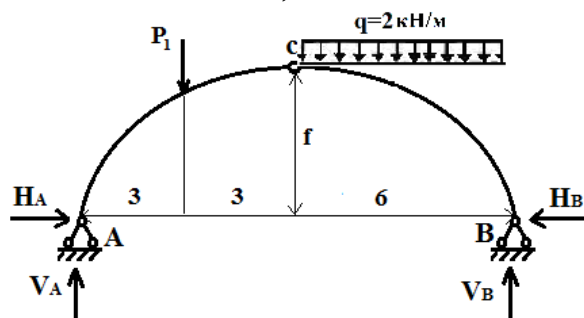
179. Ferma sterjenlaridagi zo'riqishlarni moment nuqta usuli bilan aniqlashning moh'iyati nimada?
180. Yuklarning qanday turlari mavjud?
181. Tasir chizig'i orqali zo'riqishlar qanday aniqlanadi?
- : 183. Berilgen ko'p aralıqlı balkanın' qa'legen aspa balkanın' tayanış reaksiyası tabılsın?



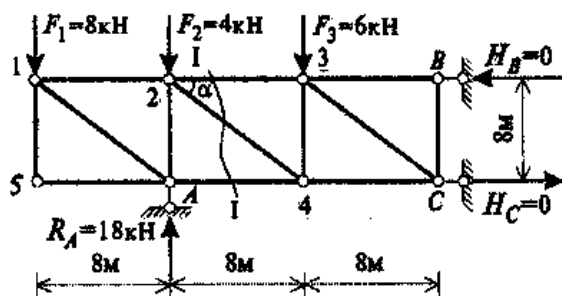
- : 185. Berilgen ramanın' M_x , Q_x , N_x - ku'shleri tabılsın?



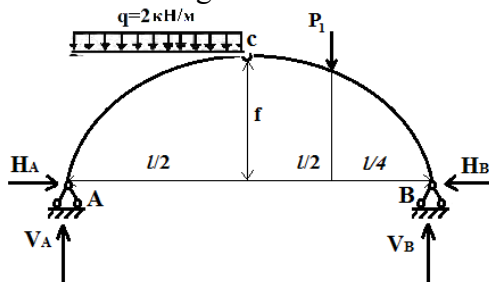
186. Ferma sterjenlaridagi zo'riqishlar tasir chiziqlari qanday quriladi?
187. Ko'chish deb nimaga aytiladi?
188. Fermalar qanday elementlardan tashkil topgan?
189. Berilgen arkanın' gorizontál tayanış reaksiyalarının' ten'ligin da'lillen'? $R=4\text{ kN}$, $V_A=8\text{ kN}$.



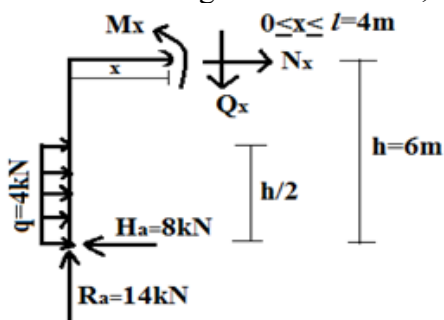
190. Berilgen fermanın' 1-1 kesimi boyınsha sterjenlerindeki ishki ku'shleri aniqlansın?



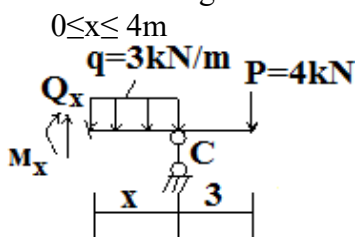
191. Ko'chishlar h'aqida tushuncha, ko'chishlar va ularni belgilash
 192. Ko'chishlarni aniqlashning umumiy formulasini ёzing?
 193. Ko'p oraliqli balkalarni qo'zg'almas yuklar tasiriga h'isoblash.
 194. Berilgen arkanin' vertikal reaksiyalari tabilsin? $f=3m$, $l=4m$.



195. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?



196. Ko'chishning musbat va manfiy qiymatlari nimalarni anglatadi?
 197. Ichki kuchlarning bajargan ishi h'aqida?
 198. Harakatlanuvchi yuklar va tasir chiziqlari h'aqida tushuncha
 199. Berilgen balkanin' kese ku'sh h'a'm iyildirio'shi momentin tabin'?



200. Berilgen ramanin' M_x , Q_x , N_x - ku'shleri tabilsin?

