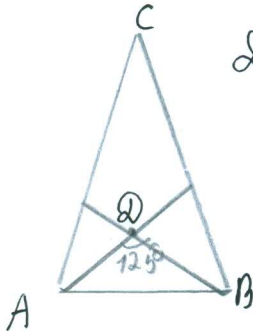


Английская математика по математике
 Город Уфа
 школа №69
 класс 8А
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№8



Дано: $\triangle ABC$

AM; KB - медианы

$\angle ADB = 125^\circ$

Найти: $\angle C$

Решение:

1) Пусть D - точка пересечения медиан

$\angle ADB = 125^\circ$

$\angle ABD + \angle BDA + \angle DAB = 180^\circ$, тогда $\angle ABD + \angle DAB = 180^\circ - 125^\circ = 55^\circ$

Поскольку AD и BD - медианы, то $\angle ABD = \frac{1}{2} \angle B$, $\angle DAB = \frac{1}{2} \angle A$

Значит, $\angle A + \angle B = 55^\circ \cdot 2 = 110^\circ$

Сумма углов треугольника равна 180° , то

$\angle A + \angle B + \angle C = 180^\circ$

$\angle C = 180^\circ - 110^\circ = 70^\circ$

$\angle C = 70^\circ$

Ответ: 70°

№6

$$(x^8 + 9x^5 + 8x^2) : 288$$

$$(2^8 + 9 \cdot 2^5 + 8 \cdot 2^2) : 288 = (256 + 288 + 32) : 288 = 576 : 288 = 2 \text{ (целое)}$$

$$(4^8 + 9 \cdot 4^5 + 8 \cdot 4^2) : 288 = (65536 + 9 \cdot 1024 + 8 \cdot 16) : 288 = (65536 + 9216 + 128) : 288 = 74880 : 288 =$$

$$= 260 \text{ (целое)}$$

№10

Рассмотрим последние цифры степеней 8

$8^1 = 8$ Как видно последние цифры последовательных степеней 8 повторяются с периодом 4

$$8^2 = 64$$

$$8^3 = 512$$

$$8^4 = 4096$$

$$8^5 = 32768$$

$$8^6 = 262144$$

$$8^7 = 2097152$$

$$8^8 = 16777216$$

$$8^9 = 134217728$$

$$8^{10} = 1073741824$$

$$8^{11} = 8589863040$$

$$8^{12} = 68719476736$$

$$8^{13} = 549755813888$$

$$8^{14} = 4398046510080$$

$$8^{15} = 35184372083712$$

$$8^{16} = 281472000000000$$

$$8^{17} = 2251993600000000$$

$$8^{18} = 18015948800000000$$

$$8^{19} = 144127590400000000$$

$$8^{20} = 1153020723200000000$$

$$8^{21} = 9224165785600000000$$

$$8^{22} = 73793326284800000000$$

$$8^{23} = 590346610278400000000$$

$$8^{24} = 4722772882227200000000$$

$$8^{25} = 37782183057817600000000$$

$$8^{26} = 302257464462540800000000$$

$$8^{27} = 2418059715700326400000000$$

$$8^{28} = 19344477725602611200000000$$

$$8^{29} = 154755821804820889600000000$$

$$8^{30} = 1238046574438567116800000000$$

$$8^{31} = 9904372595508536934400000000$$

$$8^{32} = 79235060764068295475200000000$$

$$8^{33} = 633880486112546363801600000000$$

$$8^{34} = 5071043888900370910412800000000$$

$$8^{35} = 40568351111202967283302400000000$$

$$8^{36} = 324546808889623738266419200000000$$

$$8^{37} = 25963744711170000000000000000000$$

$$8^{38} = 20771000000000000000000000000000$$

$$8^{39} = 166168000000000000000000000000000$$

$$8^{40} = 1329344000000000000000000000000000$$

$$8^{41} = 10634752000000000000000000000000000$$

$$8^{42} = 85078016000000000000000000000000000$$

$$8^{43} = 680624128000000000000000000000000000$$

$$8^{44} = 5445000000000000000000000000000000000$$

$$8^{45} = 43560000000000000000000000000000000000$$

$$8^{46} = 348480000000000000000000000000000000000$$

$$8^{47} = 2787840000000000000000000000000000000000$$

$$8^{48} = 22302720000000000000000000000000000000000$$

$$8^{49} = 178421760000000000000000000000000000000000$$

$$8^{50} = 1427374080000000000000000000000000000000000$$

$$8^{51} = 11418992640000000000000000000000000000000000$$

$$8^{52} = 91351941120000000000000000000000000000000000$$

$$8^{53} = 730815528960000000000000000000000000000000000$$

$$8^{54} = 5846524231040000000000000000000000000000000000$$

$$8^{55} = 46772193848320000000000000000000000000000000000$$

$$8^{56} = 374177550786560000000000000000000000000000000000$$

$$8^{57} = 2993420406292480000000000000000000000000000000000$$

$$8^{58} = 23947363250339840000000000000000000000000000000000$$

$$8^{59} = 191578906002718720000000000000000000000000000000000$$

$$8^{60} = 1532631248021749760000000000000000000000000000000000$$

$$8^{61} = 12261050000173998080000000000000000000000000000000000$$

$$8^{62} = 98088400001391984640000000000000000000000000000000000$$

$$8^{63} = 784707200011155878400000000000000000000000000000000000$$

$$8^{64} = 6277657600091247104000000000000000000000000000000000000$$

$$8^{65} = 5022126080073001689600000000000000000000000000000000000$$

$$8^{66} = 4017700864058401351680000000000000000000000000000000000$$

$$8^{67} = 3214160691246721081344000000000000000000000000000000000$$

$$8^{68} = 2571328552997376865075200000000000000000000000000000000$$

$$8^{69} = 2057062842397901492060160000000000000000000000000000000$$

$$8^{70} = 1645650273918321193648128000000000000000000000000000000$$

$$8^{71} = 1316520219134656954918502400000000000000000000000000000$$

$$8^{72} = 1053216175307725563934801920000000000000000000000000000$$

$$8^{73} = 8425729402461804511478415360000000000000000000000000000$$

$$8^{74} = 6740583521969443609182732288000000000000000000000000000$$

$$8^{75} = 5392466817575554887346185830400000000000000000000000000$$

$$8^{76} = 4313973454060443909876948664320000000000000000000000000$$

$$8^{77} = 3451178763248355127901558931456000000000000000000000000$$

$$8^{78} = 2760943010606684102321247145164800000000000000000000000$$

$$8^{79} = 2208754408485347281856997716131840000000000000000000000$$

$$8^{80} = 1767003526788277825485598172905472000000000000000000000$$

$$8^{81} = 1413602821430622260388478538324377600000000000000000000$$

$$8^{82} = 11308822571445000$$

$$8^{83} = 9047058057156000$$

$$8^{84} = 7237646445724800$$

$$8^{85} = 579011715657984000000000000000000000000000000000000000$$

$$8^{86} = 463209372526387200000000000000000000000000000000000000$$

$$8^{87} = 370567506021109760000000000000000000000000000000000000$$

$$8^{88} = 296454004816887680000000000000000000000000000000000000$$

$$8^{89} = 237163203853510144000000000000000000000000000000000000$$

$$8^{90} = 189730563082808128000000000000000000000000000000000000$$

$$8^{91} = 151784450466246502400000000000000000000000000000000000$$

$$8^{92} = 12142756037300$$

$$8^{93} = 97142048306400$$

$$8^{94} = 7771363864512000$$

$$8^{95} = 6217091091609600$$

$$8^{96} = 497367287328768000000000000000000000000000000000000000$$

$$8^{97} = 397893829863014400000000000000000000000000000000000000$$

$$8^{98} = 318315063890411840000000000000000000000000000000000000$$

$$8^{99} = 254652051112329536000000000000000000000000000000000000$$

$$8^{100} = 203721640890663628800000000000000000000000000000000000$$

$$8^{101} = 162977312712530903040000000000000000000000000000000000$$

$$8^{102} = 130381850170024722432000000000000000000000000000000000$$

$$8^{103} = 104305480136019777945600000000000000000000000000000000$$

$$8^{104} = 834443841088158223564800000000000000000000000000000000$$

$$8^{105} = 667555072870526578851840000000000000000000000000000000$$

$$8^{106} = 534044058304421263081472000000000000000000000000000000$$

$$8^{107} = 427235246643537010465177600000000000000000000000000000$$

$$8^{108} = 341788197314829608372142080000000000000000000000000000$$

$$8^{109} = 273430557851863686697713664000000000000000000000000000$$

$$8^{110} = 218744446281490949358170931200000000000000000000000000$$

$$8^{111} = 174995557025192759486536744960000000000000000000000000$$

$$8^{112} = 14000$$

$$8^{113} = 11200$$

$$8^{114} = 896000$$

$$8^{115} = 716800$$

$$8^{116} = 57344000$$

$$8^{117} = 45875200$$

$$8^{118} = 3670016000000000$$