############## wave_height_calc_ver 1.0 ############

sum of wave_data= -0.070000

correction of mean water level= -0.000068

new wave data after correction located in wave_data2[1024]

value of zero-up crossing point and location in the data###
wave_data2[8]= -0.089932
wave_data2[21]= -0.159932
wave_data2[39]= -0.019932
wave_data2[55]= -0.009932
wave_data2[61]= -0.029932
wave_data2[67]= -0.279932
wave_data2[79]= -0.019932
wave_data2[89]= -0.079932
wave_data2[107]= -0.099932
wave_data2[111]= -0.049932
wave_data2[131]= -0.069932
wave_data2[137]= -0.279932
wave_data2[152]= -0.019932
wave_data2[161]= -0.199932
wave_data2[177]= -0.089932
wave_data2[180]= -0.069932
wave_data2[191]= -0.169932
wave_data2[204]= -0.009932
wave_data2[210]= -0.029932
wave_data2[227]= -0.199932
wave_data2[239]= -0.059932
wave_data2[248]= -0.039932
wave_data2[261]= -0.179932
wave_data2[272]= -0.019932
wave_data2[299]= -0.049932
wave_data2[308]= -0.039932
wave_data2[324]= -0.139932
wave_data2[347]= -0.229932
wave_data2[370]= -0.199932
wave_data2[377]= -0.039932
wave_data2[383]= -0.069932
wave_data2[390]= -0.079932
wave_data2[413]= -0.089932
wave_data2[437]= -0.059932
wave_data2[450]= -0.409932
wave_data2[465]= -0.189932

wave_data2[488]= -0.239932
wave_data2[503]= -0.199932
wave_data2[521]= -0.039932
wave_data2[541]= -0.289932
wave_data2[551]= -0.019932
wave_data2[568]= -0.009932
wave_data2[591]= -0.139932
wave_data2[607]= -0.019932
wave_data2[615]= -0.349932
wave_data2[627]= -0.029932
wave_data2[631]= -0.099932
wave_data2[643]= -0.199932
wave_data2[658]= -0.109932
wave_data2[673]= -0.439932
wave_data2[688]= -0.039932
wave_data2[699]= -0.089932
wave_data2[720]= -0.019932
wave_data2[731]= -0.139932
wave_data2[741]= -0.089932
wave_data2[750]= -0.009932
wave_data2[768]= -0.209932
wave_data2[779]= -0.099932
wave_data2[791]= -0.129932
wave_data2[800]= -0.079932
wave_data2[817]= -0.119932
wave_data2[823]= -0.159932
wave_data2[831]= -0.349932
wave_data2[837]= -0.009932
wave_data2[847]= -0.049932
wave_data2[857]= -0.019932
wave_data2[865]= -0.059932
wave_data2[873]= -0.049932
wave_data2[878]= -0.089932
wave_data2[895]= -0.089932
wave_data2[902]= -0.079932
wave_data2[928]= -0.019932
wave_data2[941]= -0.209932
wave_data2[952]= -0.009932
wave_data2[967]= -0.029932
wave_data2[979]= -0.169932
wave_data2[995]= -0.189932
wave_data2[1005]= -0.019932
wave_data2[1015]= -0.029932

maxima & minima point of each wave profile
from wave_data2[8] - wave_data2[21], max= 0.700068 , min= -0.479932

from wave_data2[21] - wave_data2[39], max= 0.480068 , min= -0.419932
from wave_data2[39] - wave_data2[55], max= 0.310068 , min= -0.239932
from wave_data2[55] - wave_data2[61], max= 0.300068 , min= -0.009932
from wave_data2[61] - wave_data2[67], max= 0.020068 , min= -0.579932
from wave_data2[67] - wave_data2[79], max= 0.410068 , min= -0.279932
from wave_data2[79] - wave_data2[89], max= 0.000068 , min= -0.469932
from wave_data2[89] - wave_data2[107], max= 0.680068 , min= -0.789932
from wave_data2[107] - wave_data2[111], max= 0.030068 , min= -0.099932
from wave_data2[111] - wave_data2[131], max= 0.320068 , min= -0.219932
from wave_data2[131] - wave_data2[137], max= 0.120068 , min= -0.419932
from wave_data2[137] - wave_data2[152], max= 0.720068 , min= -0.749932
from wave_data2[152] - wave_data2[161], max= 0.390068 , min= -0.349932
from wave_data2[161] - wave_data2[177], max= 0.390068 , min= -0.299932
from wave_data2[177] - wave_data2[180], max= 0.050068 , min= -0.089932
from wave_data2[180] - wave_data2[191], max= 0.470068 , min= -0.449932
from wave_data2[191] - wave_data2[204], max= 0.780068 , min= -0.649932
from wave_data2[204] - wave_data2[210], max= 0.010068 , min= -0.159932
from wave_data2[210] - wave_data2[227], max= 0.340068 , min= -0.929932
from wave_data2[227] - wave_data2[239], max= 0.770068 , min= -0.199932
from wave_data2[239] - wave_data2[248], max= 0.120068 , min= -0.679932
from wave_data2[248] - wave_data2[261], max= 0.740068 , min= -0.559932
from wave_data2[261] - wave_data2[272], max= 0.200068 , min= -0.629932
from wave_data2[272] - wave_data2[299], max= 0.540068 , min= -0.559932
from wave_data2[299] - wave_data2[308], max= 0.670068 , min= -0.119932
from wave_data2[308] - wave_data2[324], max= 0.370068 , min= -1.189932
from wave_data2[324] - wave_data2[347], max= 1.160068 , min= -0.649932
from wave_data2[347] - wave_data2[370], max= 0.420068 , min= -0.409932
from wave_data2[370] - wave_data2[377], max= 0.370068 , min= -0.229932
from wave_data2[377] - wave_data2[383], max= 0.180068 , min= -0.039932
from wave_data2[383] - wave_data2[390], max= 0.040068 , min= -0.259932
from wave_data2[390] - wave_data2[413], max= 0.480068 , min= -0.509932
from wave_data2[413] - wave_data2[437], max= 0.870068 , min= -0.579932
from wave_data2[437] - wave_data2[450], max= 0.540068 , min= -0.649932
from wave_data2[450] - wave_data2[465], max= 0.590068 , min= -0.539932
from wave_data2[465] - wave_data2[488], max= 0.560068 , min= -0.709932
from wave_data2[488] - wave_data2[503], max= 0.460068 , min= -0.659932
from wave_data2[503] - wave_data2[521], max= 0.690068 , min= -0.499932
from wave_data2[521] - wave_data2[541], max= 0.710068 , min= -0.759932
from wave_data2[541] - wave_data2[551], max= 0.340068 , min= -0.289932
from wave_data2[551] - wave_data2[568], max= 0.500068 , min= -0.549932
from wave_data2[568] - wave_data2[591], max= 0.480068 , min= -0.489932
from wave_data2[591] - wave_data2[607], max= 0.690068 , min= -0.379932
from wave_data2[607] - wave_data2[615], max= 0.160068 , min= -1.009932
from wave_data2[615] - wave_data2[627], max= 0.530068 , min= -0.349932
from wave_data2[627] - wave_data2[631], max= 0.060068 , min= -0.169932
from wave_data2[631] - wave_data2[643], max= 0.410068 , min= -0.619932

from wave_data2[643] - wave_data2[658], max= 0.760068 , min= -0.319932
from wave_data2[658] - wave_data2[673], max= 0.200068 , min= -0.689932
from wave_data2[673] - wave_data2[688], max= 0.660068 , min= -0.439932
from wave_data2[688] - wave_data2[699], max= 0.480068 , min= -0.639932
from wave_data2[699] - wave_data2[720], max= 0.480068 , min= -0.389932
from wave_data2[720] - wave_data2[731], max= 0.990068 , min= -0.499932
from wave_data2[731] - wave_data2[741], max= 0.020068 , min= -0.369932
from wave_data2[741] - wave_data2[750], max= 0.440068 , min= -0.109932
from wave_data2[750] - wave_data2[768], max= 0.490068 , min= -0.529932
from wave_data2[768] - wave_data2[779], max= 0.640068 , min= -0.499932
from wave_data2[779] - wave_data2[791], max= 0.650068 , min= -0.739932
from wave_data2[791] - wave_data2[800], max= 0.080068 , min= -0.349932
from wave_data2[800] - wave_data2[817], max= 0.400068 , min= -0.419932
from wave_data2[817] - wave_data2[823], max= 0.020068 , min= -0.379932
from wave_data2[823] - wave_data2[831], max= 0.400068 , min= -0.509932
from wave_data2[831] - wave_data2[837], max= 0.300068 , min= -0.349932
from wave_data2[837] - wave_data2[847], max= 0.650068 , min= -0.469932
from wave_data2[847] - wave_data2[857], max= 0.210068 , min= -0.169932
from wave_data2[857] - wave_data2[865], max= 0.100068 , min= -0.289932
from wave_data2[865] - wave_data2[873], max= 0.210068 , min= -0.159932
from wave_data2[873] - wave_data2[878], max= 0.160068 , min= -0.369932
from wave_data2[878] - wave_data2[895], max= 0.700068 , min= -0.729932
from wave_data2[895] - wave_data2[902], max= 0.420068 , min= -0.349932
from wave_data2[902] - wave_data2[928], max= 0.650068 , min= -0.599932
from wave_data2[928] - wave_data2[941], max= 0.970068 , min= -0.569932
from wave_data2[941] - wave_data2[952], max= 0.520068 , min= -0.259932
from wave_data2[952] - wave_data2[967], max= 0.600068 , min= -0.519932
from wave_data2[967] - wave_data2[979], max= 0.560068 , min= -0.469932
from wave_data2[979] - wave_data2[995], max= 0.400068 , min= -0.299932
from wave_data2[995] - wave_data2[1005], max= 0.060068 , min= -0.489932
from wave_data2[1005] - wave_data2[1015], max= 0.620068 , min= -0.329932

Output of wave height & wave period
wave_height[1]= 1.180000, wave_period[1]= 6.500000
wave_height[2]= 0.900000, wave_period[2]= 9.000000
wave_height[3]= 0.550000, wave_period[3]= 8.000000
wave_height[4]= 0.310000, wave_period[4]= 3.000000
wave_height[5]= 0.600000, wave_period[5]= 3.000000
wave_height[6]= 0.690000, wave_period[6]= 6.000000
wave_height[7]= 0.470000, wave_period[7]= 5.000000
wave_height[8]= 1.470000, wave_period[8]= 9.000000
wave_height[9]= 0.130000, wave_period[9]= 2.000000
wave_height[10]= 0.540000, wave_period[10]= 10.000000
wave_height[11]= 0.540000, wave_period[11]= 3.000000
wave_height[12]= 1.470000, wave_period[12]= 7.500000
wave_height[13]= 0.740000, wave_period[13]= 4.500000

wave_height[14]= 0.690000, wave_period[14]= 8.000000
wave_height[15]= 0.140000, wave_period[15]= 1.500000
wave_height[16]= 0.920000, wave_period[16]= 5.500000
wave_height[17]= 1.430000, wave_period[17]= 6.500000
wave_height[18]= 0.170000, wave_period[18]= 3.000000
wave_height[19]= 1.270000, wave_period[19]= 8.500000
wave_height[20]= 0.970000, wave_period[20]= 6.000000
wave_height[21]= 0.800000, wave_period[21]= 4.500000
wave_height[22]= 1.300000, wave_period[22]= 6.500000
wave_height[23]= 0.830000, wave_period[23]= 5.500000
wave_height[24]= 1.100000, wave_period[24]= 13.500000
wave_height[25]= 0.790000, wave_period[25]= 4.500000
wave_height[26]= 1.560000, wave_period[26]= 8.000000
wave_height[27]= 1.810000, wave_period[27]= 11.500000
wave_height[28]= 0.830000, wave_period[28]= 11.500000
wave_height[29]= 0.600000, wave_period[29]= 3.500000
wave_height[30]= 0.220000, wave_period[30]= 3.000000
wave_height[31]= 0.300000, wave_period[31]= 3.500000
wave_height[32]= 0.990000, wave_period[32]= 11.500000
wave_height[33]= 1.450000, wave_period[33]= 12.000000
wave_height[34]= 1.190000, wave_period[34]= 6.500000
wave_height[35]= 1.130000, wave_period[35]= 7.500000
wave_height[36]= 1.270000, wave_period[36]= 11.500000
wave_height[37]= 1.120000, wave_period[37]= 7.500000
wave_height[38]= 1.190000, wave_period[38]= 9.000000
wave_height[39]= 1.470000, wave_period[39]= 10.000000
wave_height[40]= 0.630000, wave_period[40]= 5.000000
wave_height[41]= 1.050000, wave_period[41]= 8.500000
wave_height[42]= 0.970000, wave_period[42]= 11.500000
wave_height[43]= 1.070000, wave_period[43]= 8.000000
wave_height[44]= 1.170000, wave_period[44]= 4.000000
wave_height[45]= 0.880000, wave_period[45]= 6.000000
wave_height[46]= 0.230000, wave_period[46]= 2.000000
wave_height[47]= 1.030000, wave_period[47]= 6.000000
wave_height[48]= 1.080000, wave_period[48]= 7.500000
wave_height[49]= 0.890000, wave_period[49]= 7.500000
wave_height[50]= 1.100000, wave_period[50]= 7.500000
wave_height[51]= 1.120000, wave_period[51]= 5.500000
wave_height[52]= 0.870000, wave_period[52]= 10.500000
wave_height[53]= 1.490000, wave_period[53]= 5.500000
wave_height[54]= 0.390000, wave_period[54]= 5.000000
wave_height[55]= 0.550000, wave_period[55]= 4.500000
wave_height[56]= 1.020000, wave_period[56]= 9.000000
wave_height[57]= 1.140000, wave_period[57]= 5.500000
wave_height[58]= 1.390000, wave_period[58]= 6.000000
wave_height[59]= 0.430000, wave_period[59]= 4.500000

wave_height[60]= 0.820000, wave_period[60]= 8.500000
wave_height[61]= 0.400000, wave_period[61]= 3.000000
wave_height[62]= 0.910000, wave_period[62]= 4.000000
wave_height[63]= 0.650000, wave_period[63]= 3.000000
wave_height[64]= 1.120000, wave_period[64]= 5.000000
wave_height[65]= 0.380000, wave_period[65]= 5.000000
wave_height[66]= 0.390000, wave_period[66]= 4.000000
wave_height[67]= 0.370000, wave_period[67]= 4.000000
wave_height[68]= 0.530000, wave_period[68]= 2.500000
wave_height[69]= 1.430000, wave_period[69]= 8.500000
wave_height[70]= 0.770000, wave_period[70]= 3.500000
wave_height[71]= 1.250000, wave_period[71]= 13.000000
wave_height[72]= 1.540000, wave_period[72]= 6.500000
wave_height[73]= 0.780000, wave_period[73]= 5.500000
wave_height[74]= 1.120000, wave_period[74]= 7.500000
wave_height[75]= 1.030000, wave_period[75]= 6.000000
wave_height[76]= 0.700000, wave_period[76]= 8.000000
wave_height[77]= 0.550000, wave_period[77]= 5.000000
wave_height[78]= 0.950000, wave_period[78]= 5.000000

Sorting of wave height (H) & period(T) in the descending order of H
[No]= H , T
[1]= 1.810000 , 13.500000
[2]= 1.560000 , 13.000000
[3]= 1.540000 , 12.000000
[4]= 1.490000 , 11.500000
[5]= 1.470000 , 11.500000
[6]= 1.470000 , 11.500000
[7]= 1.470000 , 11.500000
[8]= 1.450000 , 11.500000
[9]= 1.430000 , 10.500000
[10]= 1.430000 , 10.000000
[11]= 1.390000 , 10.000000
[12]= 1.300000 , 9.000000
[13]= 1.270000 , 9.000000
[14]= 1.270000 , 9.000000
[15]= 1.250000 , 9.000000
[16]= 1.190000 , 8.500000
[17]= 1.190000 , 8.500000
[18]= 1.180000 , 8.500000
[19]= 1.170000 , 8.500000
[20]= 1.140000 , 8.000000
[21]= 1.130000 , 8.000000
[22]= 1.120000 , 8.000000
[23]= 1.120000 , 8.000000
[24]= 1.120000 , 8.000000

[25]= 1.120000 , 7.500000
[26]= 1.100000 , 7.500000
[27]= 1.100000 , 7.500000
[28]= 1.080000 , 7.500000
[29]= 1.070000 , 7.500000
[30]= 1.050000 , 7.500000
[31]= 1.030000 , 7.500000
[32]= 1.030000 , 6.500000
[33]= 1.020000 , 6.500000
[34]= 0.990000 , 6.500000
[35]= 0.970000 , 6.500000
[36]= 0.970000 , 6.500000
[37]= 0.950000 , 6.000000
[38]= 0.920000 , 6.000000
[39]= 0.910000 , 6.000000
[40]= 0.900000 , 6.000000
[41]= 0.890000 , 6.000000
[42]= 0.880000 , 6.000000
[43]= 0.870000 , 5.500000
[44]= 0.830000 , 5.500000
[45]= 0.830000 , 5.500000
[46]= 0.820000 , 5.500000
[47]= 0.800000 , 5.500000
[48]= 0.790000 , 5.500000
[49]= 0.780000 , 5.000000
[50]= 0.770000 , 5.000000
[51]= 0.740000 , 5.000000
[52]= 0.700000 , 5.000000
[53]= 0.690000 , 5.000000
[54]= 0.690000 , 5.000000
[55]= 0.650000 , 5.000000
[56]= 0.630000 , 4.500000
[57]= 0.600000 , 4.500000
[58]= 0.600000 , 4.500000
[59]= 0.550000 , 4.500000
[60]= 0.550000 , 4.500000
[61]= 0.550000 , 4.000000
[62]= 0.540000 , 4.000000
[63]= 0.540000 , 4.000000
[64]= 0.530000 , 4.000000
[65]= 0.470000 , 3.500000
[66]= 0.430000 , 3.500000
[67]= 0.400000 , 3.500000
[68]= 0.390000 , 3.000000
[69]= 0.390000 , 3.000000
[70]= 0.380000 , 3.000000

[71]= 0.370000 , 3.000000
[72]= 0.310000 , 3.000000
[73]= 0.300000 , 3.000000
[74]= 0.230000 , 3.000000
[75]= 0.220000 , 2.500000
[76]= 0.170000 , 2.000000
[77]= 0.140000 , 2.000000
[78]= 0.130000 , 1.500000

########### END OF PROGRAM ###########