

f(18) = f(15)+4=16 Răsp: D) 16

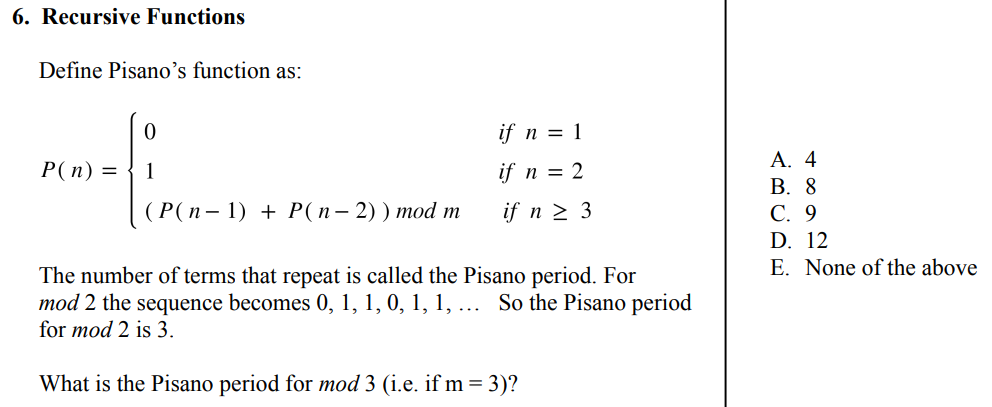
f(15) = f(12)+4=12

f(12) = f(9)+4=8

f(9) = f(7)-3=4

f(7) = f(5)-3=7

f(5) = 10



p(0)=0

p(1)=1

p(2)=(0+1)%3=1 Constatăm că după 8 pași valorile se repetă deci

p(3)=(1+1)%3=2 perioada funcției este 8. Răspuns: B) 8

p(4)=(1+2)%3=0

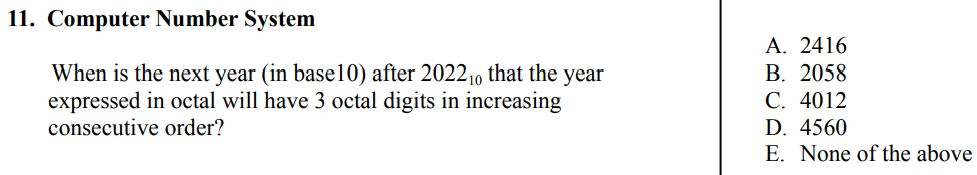
p(5)=(2+0)%3=2

p(6)=(0+2)%3=2

p(7)=(2+2)%3=1

p(8)=(2+1)%3=0

p(9)=(1+0)%3=1



Transf 2022 în baza 8: → 37468

2022:8=252 252:8=31 31:8=3

16 24 24

== == ==

42 12 7

40 8

== ==

22 4

16

==

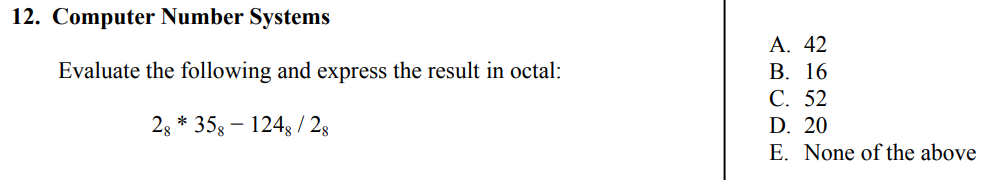
6

plecăm de la 3746 și tre' să găsim urm. număr cu 3 cifre cresc. consecutive:

acesta este 4012 (!atenție la tzapa 3789 !! în baza 8 NU există cifrele 8 și 9)

Îl facem la loc în baza 10: obținem

40128 = 4⋅83+0⋅82+1⋅8+2=4⋅512+8+2=2058 Deci răsp: B) 2058



Metoda1: facem totul în baza 10:

358 = 3\*8+5 = 29

1248 = 1\*82+2\*8+4=64+16+4=84

Deci rezultatul este: 2\*29-84/2=58-42=1610

16­10=208 Răspuns: D) 20

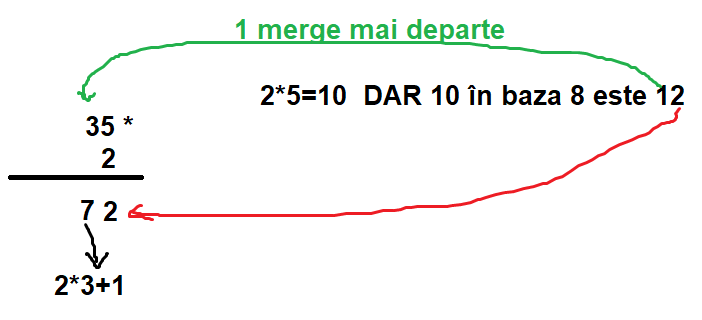
Metoda2: facem împărțiea în baza 10 (pt. că altfel riscăm să avem calcule eronate)

1248=84

84/2=42

4210=5\*8+2=528

Înmulțirea o facem direct în baza 8:



Deci rezultatul final îl facem TOT DIRECT în baza 8: 72 - 52 = 208

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | a | b | c | d | e | f | g | h | | 50 | 6 | 66 | 7 | 2 | 8 | 3 | 9 |   se face output-ul de pe ramura de adevăr a ultimului if:  8/2-9/3=4-3=1  Răspuns: A) 1 |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  |  |  |  | | --- | --- | --- | --- | --- | | x | n | a | b | output | | 1  2  3  4  5  6  7  8  9  10  11 | 1  1  2  3  5  8  13  21  34  55  89 | 1  1  2  3  5  8  3  1  4  5  9 | 0  0  0  0  0  0  1  2  3  5  8 | 1  5  55 |   răspuns: A) 3 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | arr(x) | 1 | 16 | 4 | 64 | 9 | 25 | 49 | 36 | 81 |   Prima trecere (for-ul de la 1 la 8) ia toți vecinii (primele 2, următoarele 2, etc.) și dacă ăla de după este mai mic decât ăl de dinainte le interschimbă.  DUPĂ acest pas vectorul iaște:   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | arr(x) | 1 | 4 | 16 | 9 | 25 | 49 | 36 | 64 | 81 |   Următorul for verifică dacă valoarea elementului curent este egală cu pătratul indicelui de după  Colorăm cu roșu aceste elemente care convin.  Răspuns: D) 5 |

|  |  |
| --- | --- |
|  |  |

s="aerisirea" Răsp: D)

len(s) = 9

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| x | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| s[x] | a | e | r | i | s | i | r | e | a |