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MATERIATION DISCRETA - PROF JORGE CAVALGIANTI
       LISTA 3 .- INDUÇÃO PECURSÃO
 10) 2+6+10+00+ (4m2)=2m2
  1) P(3) = 4(1) - 2 = 2 2m^2 = 2(1)^2 = 2 0/2
2) P(K) = 2 + 6 + 10 + ... + (4K-2) = 2K^2
  3) P(K+1) = 2+6+10+000+(4K-2)+[G(K+1)-2]=2(K+1)2
  USANDO A AIPÓTESE DE INDUGAD EM PCK+D:
 P(K+1)= 2+6+10+ = = +(4K-2)+(4(K+1)+2) = 2(K+1)2
            P(K)
  -> RESOLVENZO O LAJO ESQUERZO:
 P(K+1) = 2K2+[4(K+1)-2] = 2K2+[4K-4-2)
 P(K+1) = 2 K2+4K+2 = 2(K2+2K+1)
   9K+1)= 2(K+1)2 OK
11) 1+5+5+ ... +(4 M-3) = M(2m-1)
   1- P(s)= 4(1)-3=1; 1(2(1)-1)=1 OK
  2-P(K)=1+5+9+...+(4K-3)=K(2K-1)
  3-P(K41)=1+5+0+-..+(4K-3)+4(K41)-3]=(K+1)(2(K41)-4)
  USANDO A HIPOTESE PCK) EM P(K+1):
 P(K+1)= [+5+6+ ... +(4K-3)+[4(K+1)-3]=(K+1)[2(K+1)-1]
 P(K+1)= K(2K-1)+[4(K+1)-3]=(2K2+3K+1)
  RESOLVENDO O LADO ESQUEADO:
  P(K+1)= K(2K-1)+[4(K+1)-3]
 P(KH) = 2K2-K+4K+4-3
   P(K+1) = 2K2+3K+1 OK
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12) 1 + 1 + 1 + - - + 1 = M 1.2 2.3 3.4 W(M+1) M+1 J-P(D)= 1=1 = 1=0 2-P(K) = 1 + 1 + 1 + inot 3-P(K+1)=1+1+1+00+10+10 - K+1 USAUDO A HIPÓTESE PK) EM PK+1) (K+1)(K+1+1) (K+1)+1 P(K+1)=(K+1) 0K (K+1)(K+2) = 1(X+2) 13) 2+6+18+00+2.34-1-34-1 1-P(1)= 2.3'-1=2 : 3'-1=2 0/5 2-P(K) = 2+6+18++6+3K-1= 3K-1 3-P(K+1) = 2+6+18+ ... +2.3K-+2.3K+1)-1=3K+1-1 $3^{K} - 1 + 2.3^{(K+1-1)} = 3^{K} - 1 + 2.3^{K} = 2.3^{K} + 3^{K} - 1$ $= 3^{K}(2+1) - 1 = (3^{K}, 3) - 1 = 3^{K+1} - 1 = 3^{K$

14) M272M+3, P/M73 1- P(3) = 32 > 2(3)+3 : 979 0/6 2. D(K)= K3 2K+3 3. P(K+1)= (K+1) = 2 (K+1) +3 P(K+1) = (K+1)27/2K+5 FOZENDO A HIDOTEX PK)K= = 2K+3 NO WOO GO 2K+3)+2K+1>2K+5 9/2+422K+5 COMO (K+1)27,4K+47,2K+5 (K7)3 15) M2>M+1 P/MZZ 1-1(2)=4>3 06 2- P/K) = K2>K+L 3 P(K+1)= (K+1)2>(K+1)+1 P(K+1) = (K+1) 2 > 16+2 K2+2K+1> K+2 USANDO A 14 POTESE NO GADO ESEVERDO: (K+1)+2K+1 > K+2 3K+2 > K+2 (6K (6040 K72) CULAT (K+1) 2 / K+2 16) M1, >42, P/ M74 1- P(4) 6: 41 > 42 = 247 16 0E 2 P(K)=K1 > K2 3 P(K1) - (K+1) 1 > (K+1)2 K+1) > (K+1) (K+1)(K1) > (K+1) (D) (+ 5) (1) (K) (K) (K) (K) (K) DIVIDINDO DUBOS O LADOS POR (K+1)

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CONT 16-
   KL>K+1 PROVAR
   USANDO A HIDÓTESE (KIDK2)
   CONO 12 > K+1 (P1 K24)
   K1 > K2 > K+1
  ENTED KIZKIL
17 2 2 M P/MZ4
   1- P(4) = 24 241 : 16 224 016
2- P(H) = 24/Ki
   2-P(K) = 2K/Ki
3. P(K+1) = RKIN < (K+1)
      2K+1=2K.21
     2KH CIKHOTI- 2 KIN
     2K. 2 < (K+1)
    USANDO A HIDÓTESE 2KLKI
     R1.-2 < (K+1)! COMD (K+1)! = (K+1)(K)(K-1)...
       2 4 K+L
       CONO KZ4, ENTÃO:
         2(K+1) C(K+1) |
118
    54)=10
     S(m) = S(m-s) + 10 P/ MZZ
     S(1) = S(1) + 10 = 20 , S(3) = 5(2) + 10 = 30
     S(4) = S(3) + 10 = 40, 5(5) = 5(4) + 10=50
    A(m)=1 P/MZ2
      Ann
   A(2) = 1 = 1 A(3) = 1 = 1 = 2 A(4) = 1 = 2 A(3) = 1 = 1 A(3) = 1 = 1 A(3) = 1 = 2
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		jan-
	20) a) F(m+1) + F(m-2) - 2 F(m) 473	
V		
	f(m+1) = F(m) + F(m-1) (1)	hash harmon and the statement of the control of the
	F(M) - F(M-2) + F(M-1) - D F(M-2) = F(M) - F(M-1) (2)	
West 2000	De (1) x (2)	
	F(m) + F(m-1) + F(m) - F(m-1) = F(m) + F(m) = 2 F(m)	
		- Andrews - Andr
	b) fm = 5 F(m-4) + 3 F(m-5), M > 6	
Security Statement	F(m) = F(m-1) + F(m-2) = F(m-2) + F(m-3) + F(m-3	-4
	F(m) = F(m-3) + F(m-4) + F(m-4) + F(m-9) + (F(m-4) - F(m-5))	
	F(m) = F(m-3) + 4 F(m-4) + 2 F(m-5)	
	F(m) = F(m-4) + F(m-5) + 4 F(m-4) + 2 F(m-5)	escunaciones transcribiros unarrios considerar com entre entre en
	F(m) = 5 F(m-4) +3 F(m-5)	Advantage particular and a supplied and a supplied of the supp
W174 (22) (274 - 475 (274 (274 (274 (274 (274 (274 (274 (274	1(M) = 31(M-M) 1 11M-31	
	15 72 FF 72 C . C . C . 21	
	e)[F(m+1)] = [F(m)]2+ F(m-1) F(m+0) P/ M >2	н баши - так и тирут на бата и и то 4 ну от так и предвайтеля то Туру.
	/F(m+1) = +(m+1) = (F(m) + F(m-1))	
	$= \pm (m)^2 + 2 + 2 + (m) + (m-1) + + (m-1)^2 $ (4)	
	F(M+2) = F(M+1) + F(M) = F(M) + F(M-1) + F(M) = 2 F(M) + F(M)	(2) (2)
00	F(M+2) = F(m) + F(m-1) + F(m) = 2 F(m) + F(m-1)	
	EM(I) COLOGNIO FIN-1) EM EUIDÊNCIA:	
	= F(m)2+ F(m-1) [2 F(m) + F(m-1)] = f(m)2+ F(m-1).	Females
		and the second s
	ENTO [F(M+1)] = [F(M)2+ F(M-1). F(M+2)]	
	(ENTAR [F(M+1)] = LF(M) + F(M-1). (MTG)	
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