2) Donnestre que: a) (12(3x)= Gr3(x)-3coo(x)8n2(x). se reescribe cos (3d) como: cos (2d+d) (30(3d) = Cos(2d) (vs(d) - Sen(2d) Sen(d). (1013x)=[cos(x)-8n(x)]cosx-28n(x)(s)(x)8n(x) $Co(3x) = co^{3}(x) - Sen(x) Cos(x) - 2 Sen(x) cos(x)$ $Co(3x) = co^{3}(x) - 3 Sen^{2}(x) cos(x)$ yearle real. Con 3 x = 600 x - 8600 x 2500 wordered when

b) Sen (3d) = 3 Cos (d) Sen (d) - Sen (d). (cos(x)+isin(x)) = cosnx+isennx. (100 (100 (100) 30,000 (100) 30,000 (100) Cos3x+csen3x= (cosx+csenx) Cop 3x + i Sen 3x = cop x + 3 Cop x . 1 Sen x + 3 cop x . 1 Sen x. 208 1100 (138 2 2 d) Cos32 + iSen32 - cos a + 3 i cos2 Senx - 3 cosx Send. (3000 (30) mo (3.6. 25 mod) cos 3x - cos x - 3 cos x Sen x. parte complya Sen3d: -Send + 3 cond Send.

Demuestre que 6. a) log(-ie) = 1-17 (de domo) = 0 0000 (69(2)= |n121+iarg(2). Colomos Manog? 121 = Va2+62 = Vo2+(-e)2 = Ve2 0=Argz E (-17, 17] Reemplazandu: logc-ie)= (n(e) + ((-12)

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d) log(i) = (20+1/2) 11($arg(2) = 0 + 2nn, \theta \in (-n, n]$. ræmplazando: log(i) = ln(1) + i(2 + 2nn). log(1) = 0 + i(1) + 2 n 17) log(11) = (11/2+2m)