

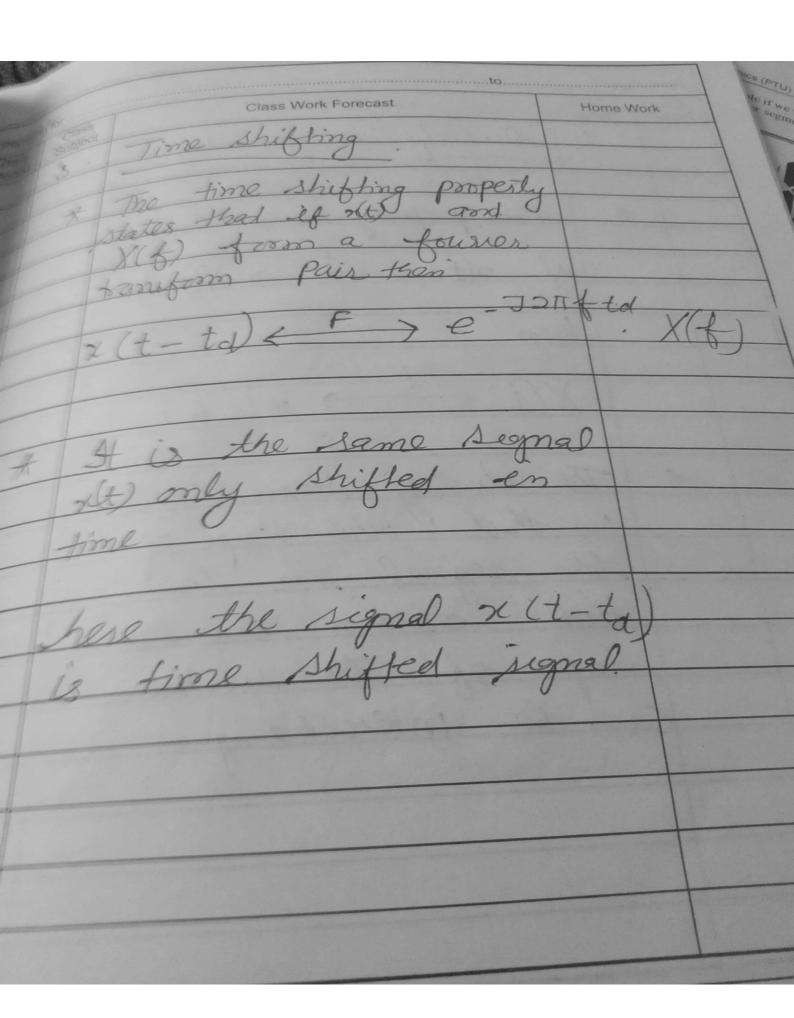
the definition of the transform (as the prises transform (as the perater is linear).

The Easily Extended to a linear combination of an anditrary number of signals Timo scateng : Let x(t) and X(f) be. fourier Transform Pairs and let "a" be a constant. Then time scaling property states that

x(at) represents a time represents fraguency scaled signer Composessed segnal but

Composessed segnal but

Yes represents expanded. version of X(f). For 971, X(at) Will be expanded signal in the time domain. But its fourier transform X (t/d) respresents versions of X(1)



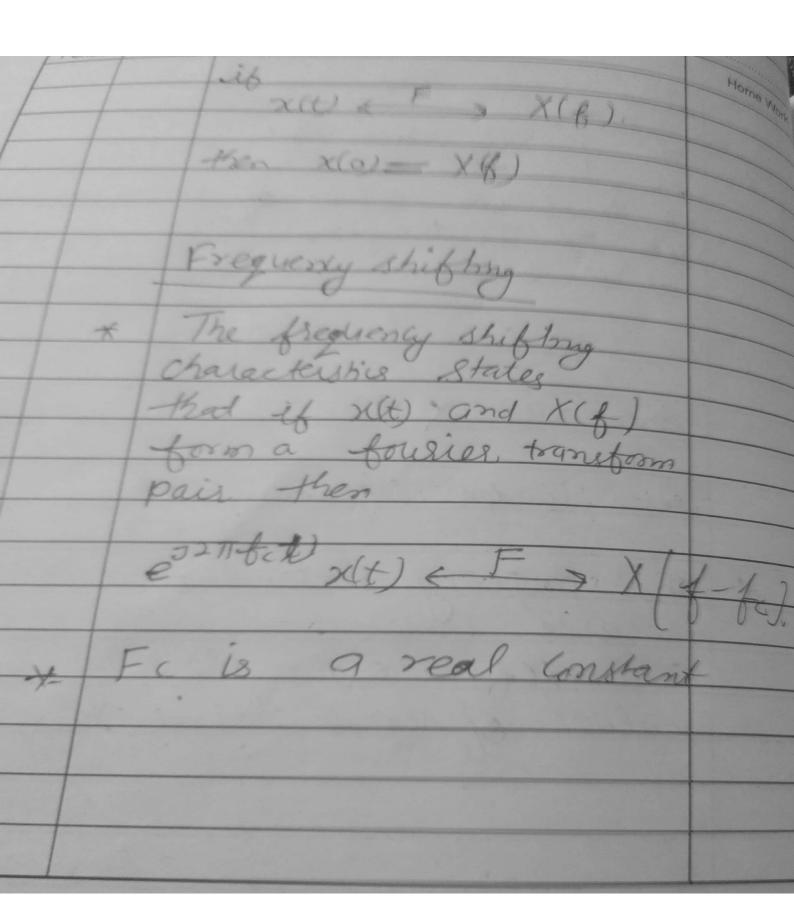
19 Duality or Symmetry * This property states that if 2(t) 4 = > X(= f) then X(t) + > x(-6) The duality theorem tells the segnal in the time domain and the shape of: the spectium can be interchanged.

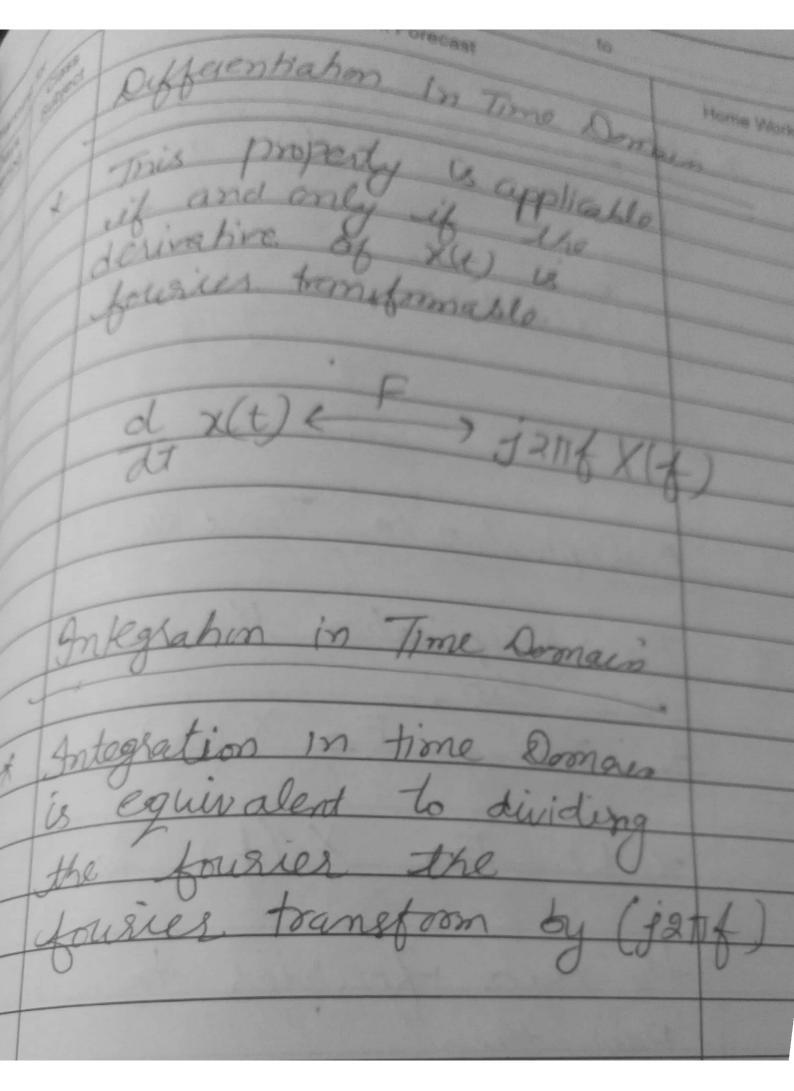
area under the curve equals the values of i.e. if x(t) < F > X(6). then x(t) = x(0) Diea under X(f). # This properly states that

the area under tre

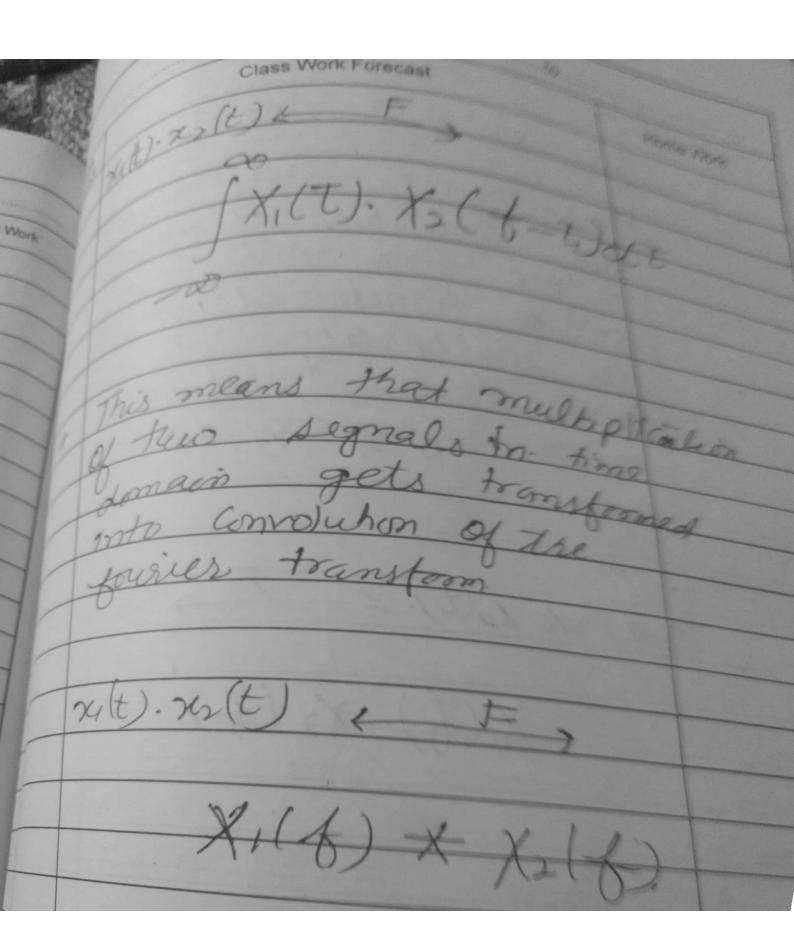
aure X(b) Equals the.

values of signal. At) at \$=0





Home Won Class Work Forecast provided that X(0)=0 X(A)dA < F > 1 X(B) Pulhplication in Time Demain The mulhpliation theorem 4 x(t) (F> X, (6) and x(t) (t) are The true fourier transform



This property states that the convolutions of signals, in the time domain will be transformed into the multiplications of their fourier tournstoom in the frequency domain I e. XI(f). X2(f)	Class Work Forecast Convolution in Time Damain	Home
$\chi(t) \times \chi_{s}(t) \leftarrow F$	This property states that the convolutions of signal in the transformed into the multiplications of their fourier touristoom in the frequency domain	
X1(b). X2(b)		
	X1(b). X2(b)	