13. Show that $x^n - 1$ is divisible by $x - 1$ for every natural n. Find the quotient.

1^n-1=0=> (x^n-1)/(x-1)

x^n+0x^(n-1)+...+x-1 | x-1
x^n-x^(n-1) | x^(n-1)+x^(n-2)+...+x+1
x^(n-1)+0x^(n-1)
....
Yes it is