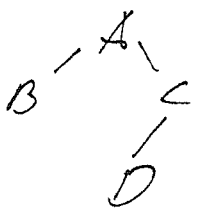
12.



$n(t) = 4$

+ision → $floor\left(\frac{4+1}{2}\right) = 2 = leaves(t)$

∴

t is a two tree? NO!

instead

ored vision → $\frac{4+1}{2.0} = 2.5 \geq leaves(t)$

True

$\frac{n(t)+1}{2.0} <= 2^{height(t)}$

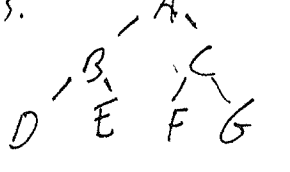
$height(t) = 2$

$\frac{4+1}{2.0} <= 2^2$

$2.5 \leq 4$

True

13.



$n(t) = 7$

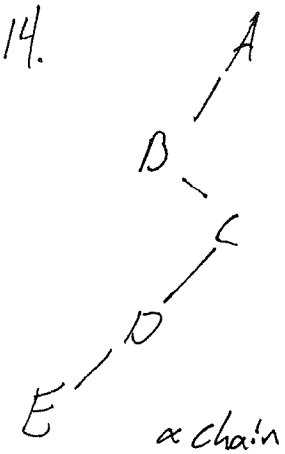
$leaves(t) = 4$

$height(t) = 2$

1,3) $4 = \frac{7+1}{2}$ = True

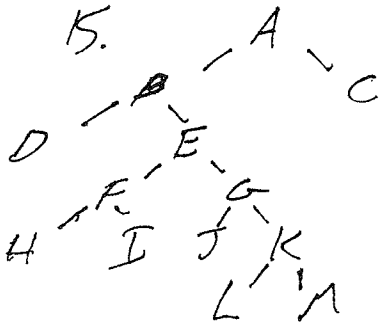
2,4) $\frac{7+1}{2} = 4 = 2^2$ = True

14.



a chain

15.



$2+4+4+4+5+5+1 = 25$