

Complete the 4 blanks in the following table.
Expected frequencies are computed from the normal distribution.

Age of mothers of students taking Biol 4605 and 7220 in 1998

Age Range	Age x	Obs Freq F(Age=x)	Sum(Age)	Sum(Age*Age)	Expected Freq 55*Pr(Age=x)	Obs-Exp	Cumulative Frequency F(Age≤x)
16-20	18	11	198	3564	8.04	2.96	11
21-25	23	19	437	10051	21.26	-2.26	30
26-30			504	14112	18.66		
31-35	33	7	231	7623	5.44	1.56	55
36-40	38	0	0	0	0.53	-0.53	55
41-45	43	0	0	0	0.02	-0.02	55
Sum		55	1370	35350	53.95	1.05	
mean(Age)			24.9091				
var(Age)				22.6768			
stdev(Age)				4.7620			

(2) Write a data equation for $F(\text{Age}=33)$, for which the frequency is 7.

$$\underline{\hspace{2cm}} = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$$

(3) The standard deviation is 4.76 years. How would you compute the variance from this standard deviation ?

(4) Mean(age(1997)) = 27.8 years
Mean(age(1998)) = 24.9 years

Write a null / alternative hypothesis pair to test whether age of students in 1997 differs from 1998.