a) see scatter plot

b) FROM EXCEL \( r = 0.839 \)
\( a = -3.668 \)
\( b = 1.281 \)

c) \( H_0: \rho = 0 \quad H_1: \rho \neq 0 \)

\( \text{NO LINEAR RELATIONSHIP} \quad \text{THERE IS A LINEAR RELATIONSHIP} \)

d) \( \begin{array}{c|c|c}
\text{C.V.} & \text{DNR} & \text{df} = m - 2 \\
-0.632 & .632 & m = \# \text{OF POINTS}
\end{array} \)

test value: \( r = 0.839 \)

REJECT \( H_0 \)

There is a linear relationship between the number of viewers last year and this year for the same shows.

e) \( y' = -3.668 + 1.281x \)

f) \( \begin{array}{c|c|c}
\text{LET} & x & y' \\
16 & 16.328 & (16.0, 16.8) \\
28 & 32.2 & (28.0, 32.2) \\
26 & 29.632 & (26.0, 29.6)
\end{array} \)