table 3
\[ P(D \text{ and } S) = \frac{139}{1814} \]

\[ P(D | \text{not } S) = \frac{230}{732} \]

association between \( E \) and \( S \)

as smoking goes from (never smoked) to (current smoker) in the 1950s, (tables)

\[ P(\text{dead} | \text{never smoked}) > P(\text{dead} | \text{current smoker}) \]

\[ P(\text{dead}) \downarrow (!) \]

assoc. between \( E \) and \( S \)

as \( S \uparrow \), assoc. between \( E \) and \( S \)

as \( E \uparrow \), assoc. between \( E \) and \( S \)

as \( E \uparrow \), assoc. between \( E \) and \( S \)
P(at least 1 GP winner in this law) ~ rand price

meta-code (process) how to solve old with problems

when solving a new problem
P(new), try to find another problem P(old) with

2 properties: 
1. P(new, P(old) similar in relevant ways
2. you know how to solve P(old)

T/F: P(1 or more T-slog is 5 bits, data parents carry 4)
P(1 or more interesting things happening in n trials) < not
\[ p(1) = p \]
\[
\text{I} = 1 - \left(1 - \frac{1}{4}\right)^5
\]

\[
\text{II} = 1 - (1 - p)^5
\]

\[
\text{Intensity Ring \( \text{I} \)} \leftrightarrow \text{ person } i \quad \text{w.p. } \frac{1}{292,201,335}
\]

\[
P(\text{II}) = p = \frac{1}{292,201,335}
\]

\[
h = 182,900,000
\]

\[
\text{I}(81.15) = \frac{911.5}{911.5 + 0}
\]

\[
w_{\text{link}} = P(81.15) \cdot P(0)
\]

\[
= \frac{(33)(64)}{(69)(5)} \cdot \frac{(1)(26)}{(26)(1)} = \frac{1}{1138.53}
\]
\[
\begin{pmatrix}
1.1 \\
\frac{11238513}{26}
\end{pmatrix} = \begin{pmatrix}
1.125 \\
11238513
\end{pmatrix}
\]

1. Identify all different sources of information.
2. Choose T/F symbols carefully to stand for those information sources.

Number 3

```
meta-code
(process)
how to solve prob. stat. problems
```

4. Who actually will be pardoned?
6. What Warden says:

\[
A = \begin{pmatrix}
A \text{ jet's pardon}
\end{pmatrix}
\]
\[
B = \begin{pmatrix}
B
\end{pmatrix}
\]
\[
c = \begin{pmatrix}
c
\end{pmatrix}
\]

\[
W = x
\]

(warden says +

\[\text{will not be} \]

\[\text{pardoned} \]

(unknown)
\[ ? = P(\overline{W} = B) \text{ (we want)} \]

\[ \text{data unknown} \]

\[ P(\overline{W} = A | A) = 0 \]

\[ P(\overline{W} = B | B) = 0 \]

\[ P(\overline{W} = C | C) = 0 \]

\[ P(\overline{W} = B | A) = \frac{1}{2} \]

\[ P(\overline{W} = C | A) = \frac{1}{2} \]

\[ \frac{1}{3} \quad \frac{1}{2} \]

\[ \text{method III: } P(A | \overline{W} = B) = \frac{P(A) \cdot P(\overline{W} = B | A)}{P(\overline{W} = B)} \]

\[ \text{wanderer's behavior hard to think about without knowing the truth} \]
So: extend the conversation: partition over facts (unknown)

(we're computing)

\[ P(W = B) \]

\[ P(W = B) = P(W = B \text{ and } A) + P(W = B \text{ and } B) + P(W = B \text{ and } C) \]

\[ P(\text{rain in SC tomorrow} | \text{cold front moves in}) \]