To calculate the probability of having bowel cancer given a positive blood test, we can use Bayes' theorem. However, in this case, it's straightforward to directly compute it using the given data.

The probability of having bowel cancer given a positive blood test, \( P(Y \mid +) \), is given by:

\[ P(Y \mid +) = \frac{\text{Number of positive tests with cancer}}{\text{Total number of positive tests}} \]

Using the table:

- Number of positive tests with cancer (Y) = 2

- Total number of positive tests (+) = 2 + 18 = 20

Thus,

\[ P(Y \mid +) = \frac{2}{20} = 0.1 \]

Therefore, the probability of having bowel cancer given a positive blood test is 0.1 or 10%.