The offset of t in str2 is 8, and the offset of u in str2 is 32. So we know that:

 $4 < B \leq 8$

 $6 < A \leq 10$

The offset of y in str1 is 184, so we know that:

 $176 < 4 \times A \times B \leq 184$

So the answer is:

A = 9 and B = 5.