



*This brainteaser was written by Derrick Niederman.*

If you rearrange the letters S, T, O, and P,  
what is the probability that you'll end up  
with a common English word?





**Solution: 1/4.**

There are  $4! = 24$  ways of arranging a set of four objects. In this instance, the 24 possibilities are listed below, and the bold words in the first column are the arrangements that form actual English words.

The probability in question is therefore  $6/24$ , or  $1/4$ .

<b>STOP</b>	SPTO	STPO	SOTP
<b>POTS</b>	PTOS	PSTO	PSOT
<b>OPTS</b>	OTPS	OTSP	OSTP
<b>TOPS</b>	TPOS	TSOP	TPOS
<b>POST</b>	PTSO	OSPT	OPST
<b>SPOT</b>	SOPT	TSPO	TOSP