21. Let the numbers be x and y, where $x \geq 0$, $y \geq 0$, and $x + y = 8$. If P is the product of the numbers, then

$$P = xy = x(8 - x) = 8x - x^2 = 16 - (x - 4)^2.$$

Therefore $P \leq 16$, so P is bounded. Clearly $P = 16$ if $x = y = 4$, so the largest value of P is 16.