# Problem of the Week <br> Grade 11 and 12 

## Pair Possibilities

Determine all possible ordered pairs of positive integers $(a, b)$ that satisfy

$$
\frac{1}{a}+\frac{2}{b}=\frac{8}{2 a+b} \quad \text { and } \quad 2 a+5 b \leq 54 .
$$

