

In each problem, compute $\gcd(a, b)$ and find integers x and y such that $\gcd(a, b) = ax + by$. Your work should include a line that makes it clear that you know what the answer is, not just how to set up the computations, something like

$$\gcd(8, 5) = 1 = 2 \cdot 8 - 3 \cdot 5$$

I encourage the table format I used in class.

1. $a = 13, b = 8$
2. $a = 89, b = 26$
3. $a = 137, b = 100$
4. $a = 180, b = 125$
5. $a = 25698, b = 12456$