$\begin{array}{c} {\rm Math~255~-~Spring~2022}\\ {\rm The~Euclidean~algorithm~by~hand}\\ {\rm 10~points} \end{array}$

For each of the following pairs, use the Euclidean algorithm to compute gcd(a, b). You may use a calculator to do any intermediate steps, but you must show your work "as if" you were doing the problem by hand for credit.

1.
$$a = 7, b = 30$$

2.
$$a = 101, b = 17$$

3.
$$a = 252, b = 291$$

4.
$$a = 845, b = 117$$