Drill questions:

1. Use the Euclidean algorithm to find $gcd(237, 87)$.

2. Use the Euclidean algorithm to find $gcd(5720, 4370)$.

3. Use the Euclidean algorithm to find $gcd(2345, 525)$.

4. Check if the following equation has a solution in integers, and if so find at least one:
$$3x + 4y = 13$$

5. Check if the following equation has a solution in integers, and if so find at least one:
$$21x + 111y = 2$$

6. Check if the following equation has a solution in integers, and if so find at least one:
$$25x + 100y = 6$$

7. Check if the following equation has a solution in integers, and if so find at least one:
$$39x - 13y = 111$$

8. Check if the following equation has a solution in integers, and if so find at least one:
$$122x + 129y = 2$$

Assignment:

1. Find $gcd(2^{2^{21}} + 1, 2^{2^{22}} + 1)$.

2. How many 60- and 80-pound containers are needed to ship a load of 440 pounds of wheat (all containers have to be full!)?