Division assignment:

1. Do the problem 838÷36 three ways:
a. Draw out how to solve it using manipulatives (your choice of base 10 blocks or stamp game)
b. Write out the answer using the scaffolding algorithm
c. Write out the answer using standard (long) division
d. Then color code a, b, and c or in some other way explain and draw how the 3 solutions fit together.

2. Do each of these problems by scaffolding division using friendly numbers (not the most efficient numbers) **and** by standard (long) division.  Color code the solutions to show how the two solutions methods fit together.
a. 2036÷26
b. 969÷14

3. Below is the work of 3 fictional students.  Some of them (at least 1) are making consistent errors.  That means, if there is the opportunity in the problem for them to make their error, they will make it.  Some of them (at least 1) have alternate algorithms that they are using (that yield the correct result in a reasonable).  Try to figure out what each is doing and why.
   • Figure out what each student is doing and to do the same thing they would on the uncompleted problems at the end of each set.
   • Explain what they did in words: *what are they doing* and why: *is it an error or an alternate algorithm*?

A.

$$5\overline{)254} \quad 9\overline{)4560} \quad 8\overline{)5840} \quad 7\overline{)2149} \quad 6\overline{)4818} \quad 7\overline{)3525}$$

B.

$$6\overline{)843} \quad 8\overline{)2738} \quad 14\overline{)7346} \quad 26\overline{)7328} \quad 24\overline{)5132}$$

C.

```
    1 3 4 R3        2 7 R4          3 2            4 9
8)1 0 7 5       6)1 2 4 6      14)4 2 2 8     11)4 5 0 2      7)2 8 6 1      12)3 7 0 8
  8               1 2             4 2             4 4
  ---             ---             ---             ---
  2 7             4 6             2 8           1 0 2
  2 4             4 2             2 8             9 9
  ---             ---             ---             ---
    3 5             4               0               0
    3 2
    ---
      3
```

D.
```
    47          38          74          432         54          234
  × 36        × 25        × 23        × 27        × 29        × 68
  ----        ----        ----        -----       ----        -----
  1200         600        1400        8000
   240         156         210        2866
   210         160          80         608
    42          40          12         210
  ----        ----        ----         46
  1,692        950       1,702         14
                                     ------
                                     11,664
```

E.
```
   ²64         ²⁴47         ²83        ³⁶ ¹42        42          63
  × 27        × 36        × 37        ×  29        × 36        × 29
  ----        ----        ----        -----
   448         282         581        5778
  1480        1410        2690       15940
  ----        ----        ----       ------
  1,928       1,892       3,270      21,718
```

F.
```
   ⁴46         ⁴36        ²²137         46          39
  ×  8        ×  7        ×   4        ×  5        ×  4
  ----        ----        -----
   648         49²        1208
```