NBT.6 Multi-Digit Division

Goal: I will be able to divide 3- and 4-digit dividends by 1- and 2-divisors to find a quotient in 3 methods.

Expectations

① Know facts x and ÷ 0-9

② Use each steps to success

③ Must write in proper place value

4th gr. Review

① dividend ÷ divisor = quotient

$$45 \div 9 = 5$$

② $$\begin{array}{r}\text{quotient}\\ \text{divisor}\overline{)\text{dividend}}\end{array}$$

$$\begin{array}{r}51\\ 9\overline{)459}\end{array}$$

divided by

← Read:
459 divided by
9 is 51
(read backwards)

③ $$\frac{\text{dividend}}{\text{divisor}} = \text{quotient}$$

Every fraction is a division problem.

$$\frac{45}{9} \leftarrow \text{divided by} = 5$$

This is the WRONG way to write a division problem!

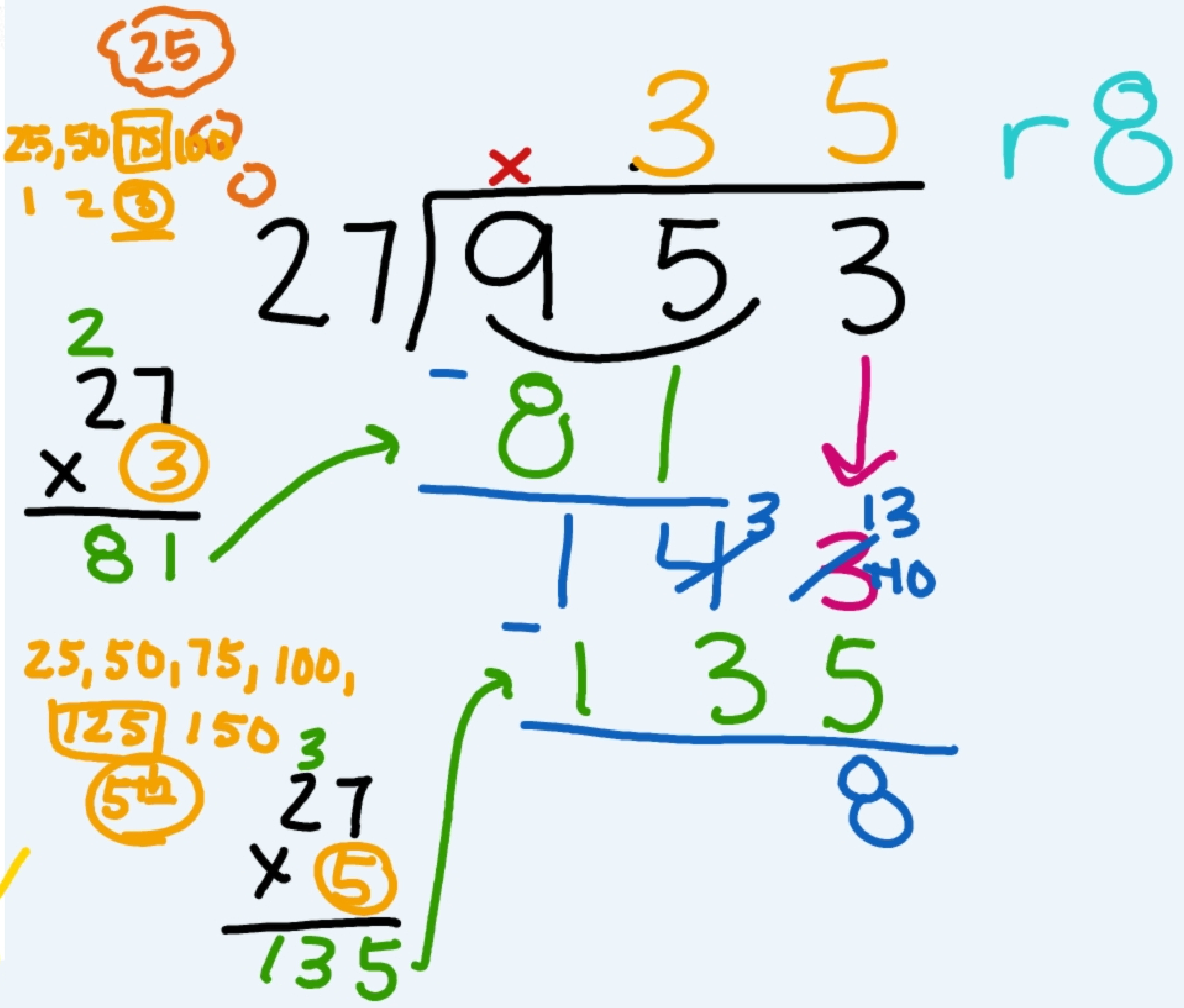
$$\xcancel{\begin{array}{r} 45 \\ \div \quad 9 \\ \hline 5 \end{array}}$$

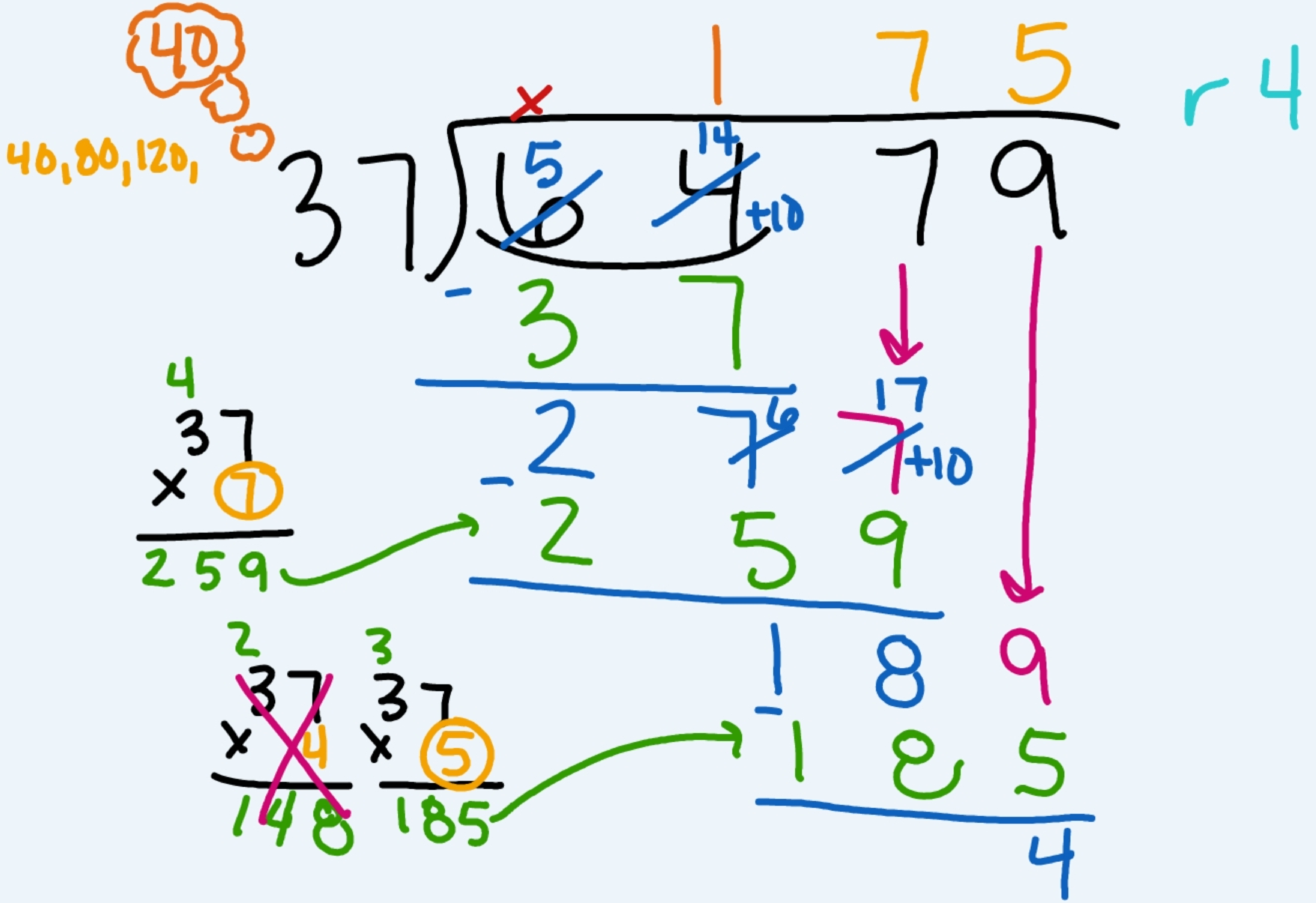
Never, Ever, EVER write a division problem to solve like this!

Steps to Success- Standard Algorithm Division

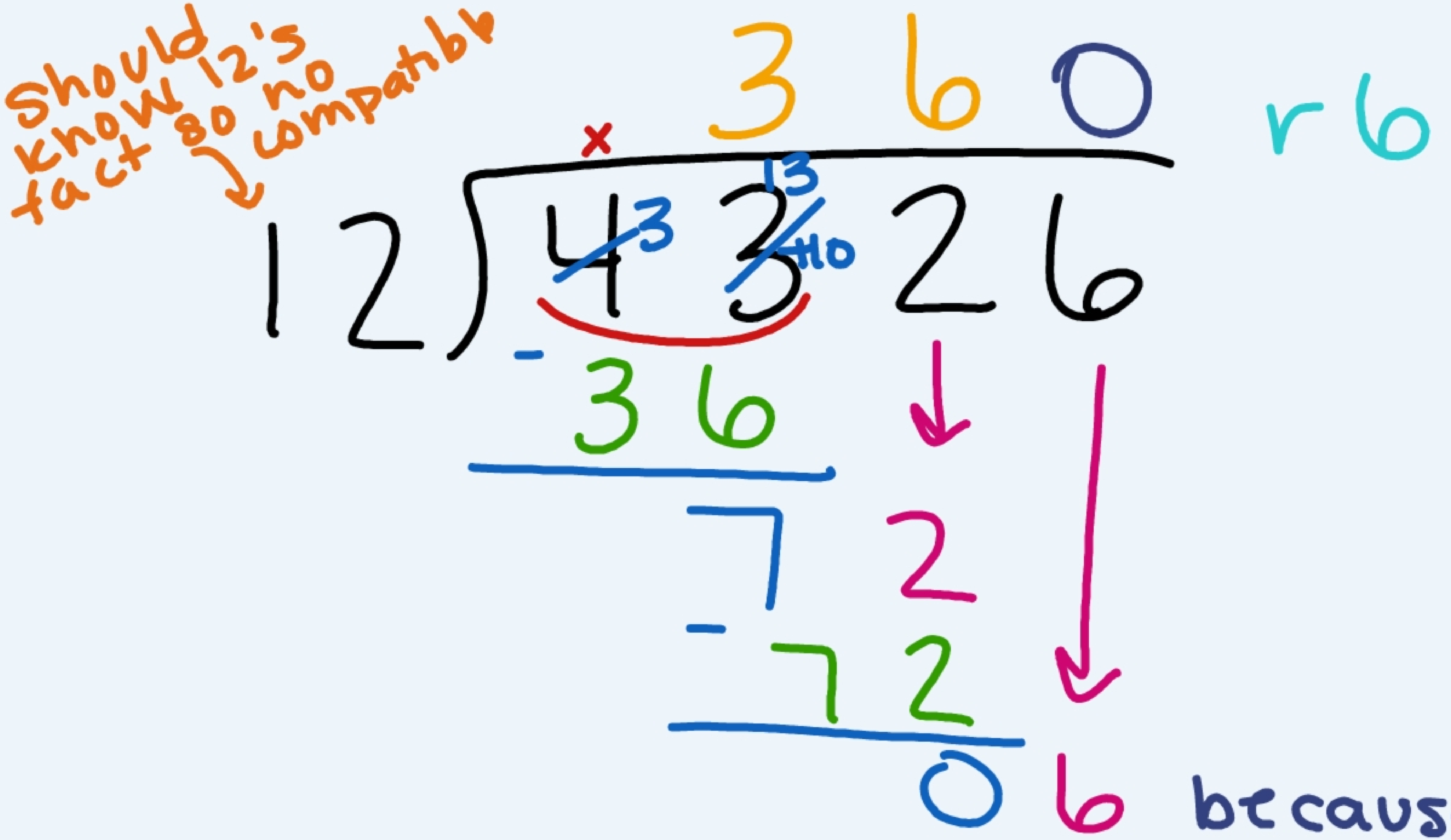
1. DIVDE
   - Think: Use COMPATIBLE Numbers- what number multiplied by the divisor (side number) will get me close to the dividend (inside/bottom number)?
   - Write the answer to this question ABOVE the dividend
2. MULTIPLY
   - Think: When I multiply the number I just wrote above times the divisor (side number), what does that equal?
   - Write the answer to this question BELOW the dividend
3. SUBTRACT
   - Subtract the two numbers below
4. BRING DOWN
   - Only the next digit in the dividend
5. REPEAT
   - Steps 1-4 with the new number created below the dividend
6. REMAINDER
   - Write above next to quotient
7. CHECK
   - Is my quotient in place value above dividend? ✓
   - Does my answer make sense (remainder less than divisor)? ✓
   - Multiply quotient by divisor and add remainder to product

35 x 27 = ____ + 8 = 953




40
40, 80, 120,
x
1 7 5
r 4
37)6479
5 14 +10
- 3 7
2 7 7
6 17 +10
- 2 5 9
1 8 9
- 1 8 5
4
4
37
x 7
259
2
37
x 4
148
3
37
x 5
185

Should know 12's fact 80 no compatbl



3 6 0 r6
x
12
~~4~~ 3
~~3~~ 13 10
4 3 2 6
- 3 6
7 2
- 7 2
0 6

because 12 x ? ≠ 6 must hold quotient place value with a zero