

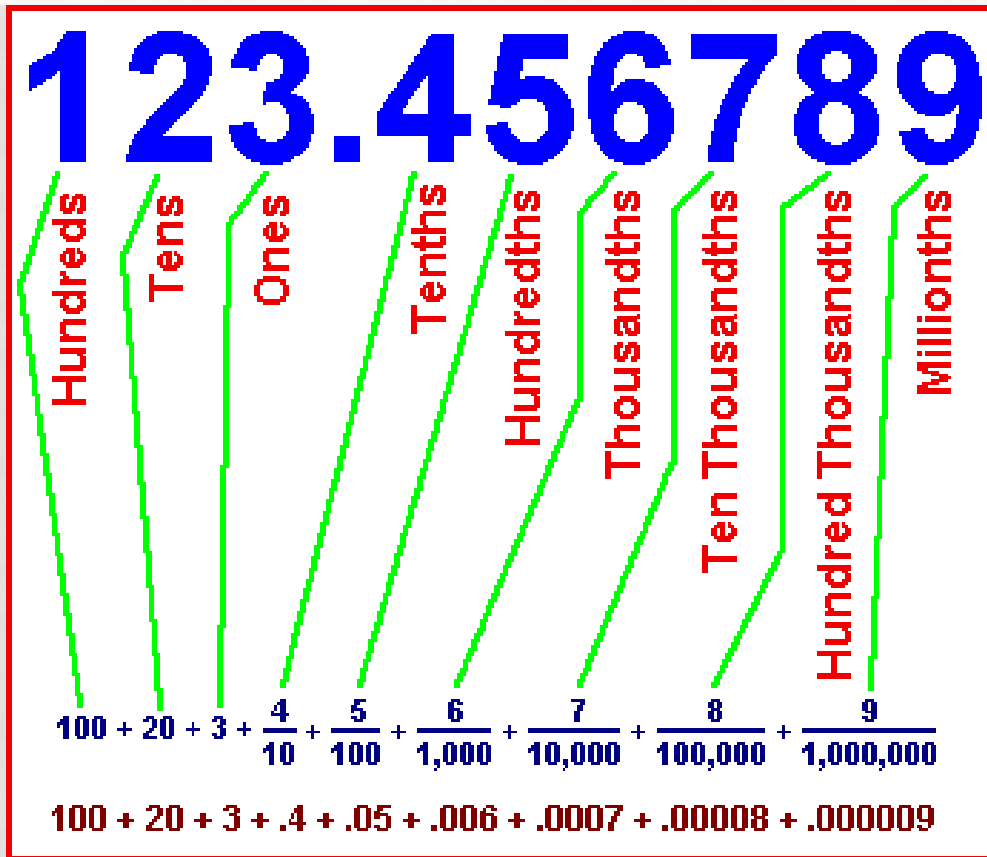


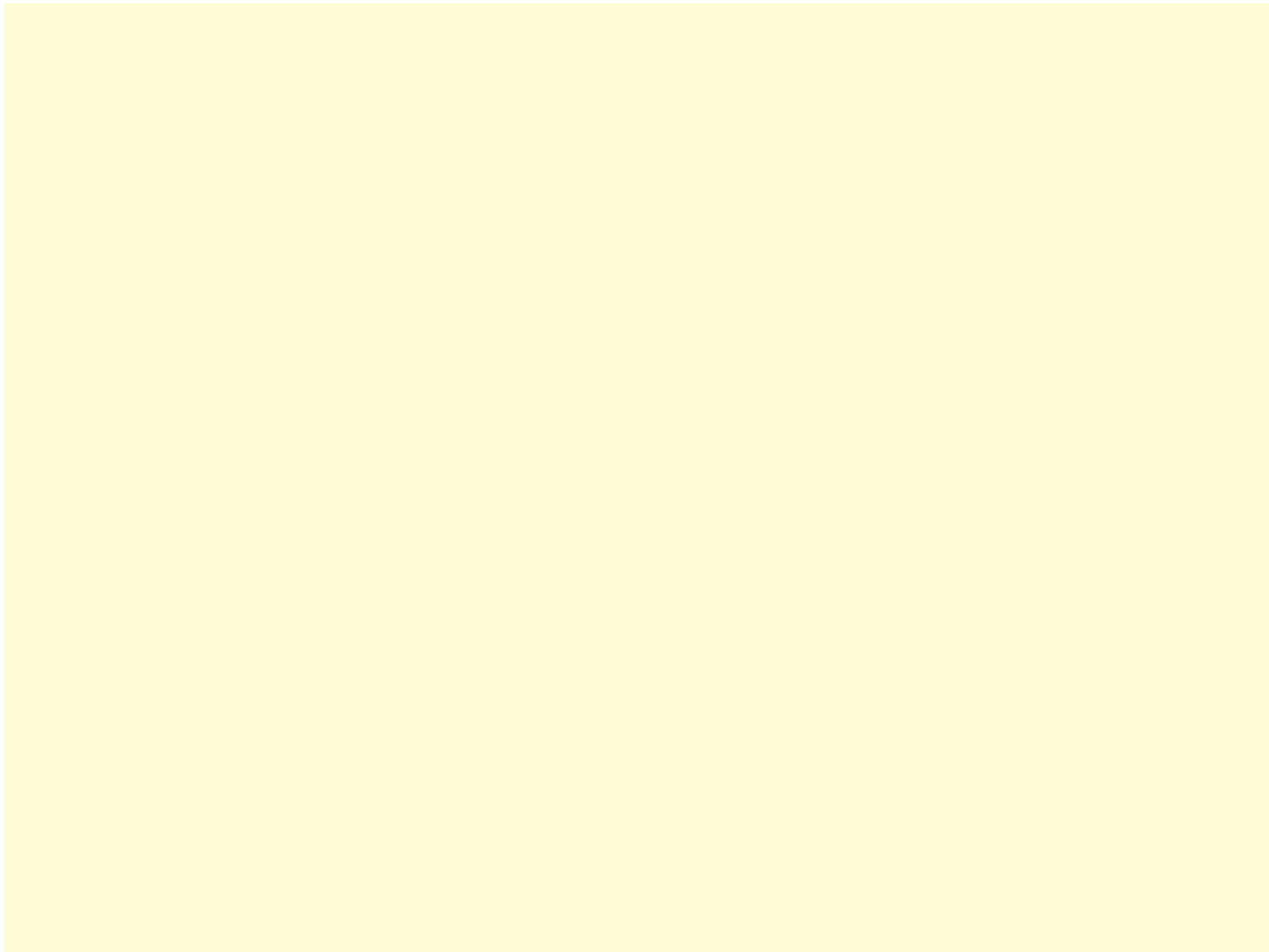
DAYTONA
STATE COLLEGE

DECIMALS

A PLACE VALUE FOR EVERYTHING, AND
EVERY DECIMAL IN ITS PLACE.

PLACE VALUE

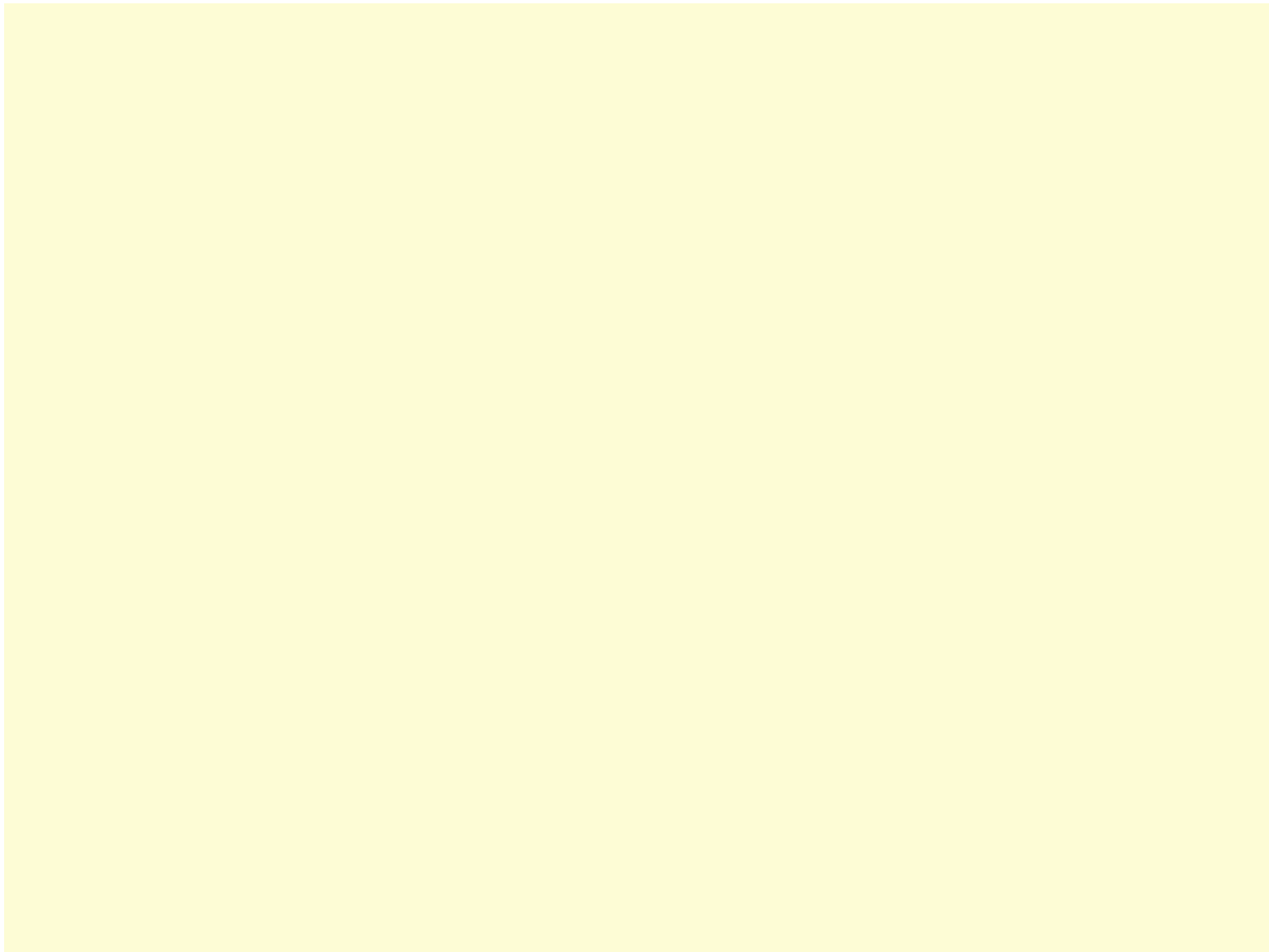




ROUNDING

- Look at the decimal place to the right of the place you are rounding to.
- If it is less than 5, leave the number alone.
- If it is 5 or greater, increase the number by 1.
- Drop off all numbers to the right of the place you are rounding to.

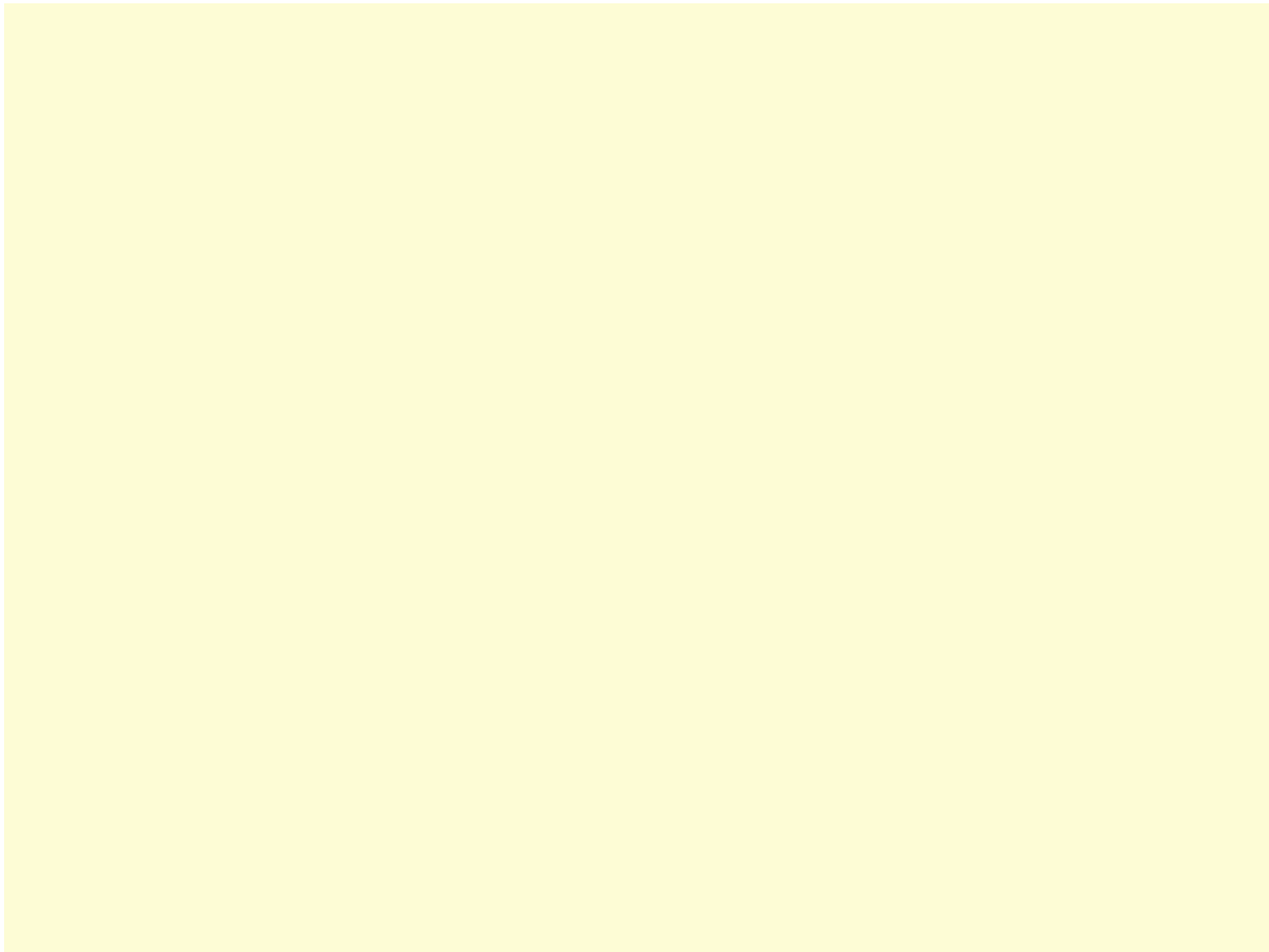
$$33.5674 = 33.57$$



ADDING

- Line up the decimal points and add.

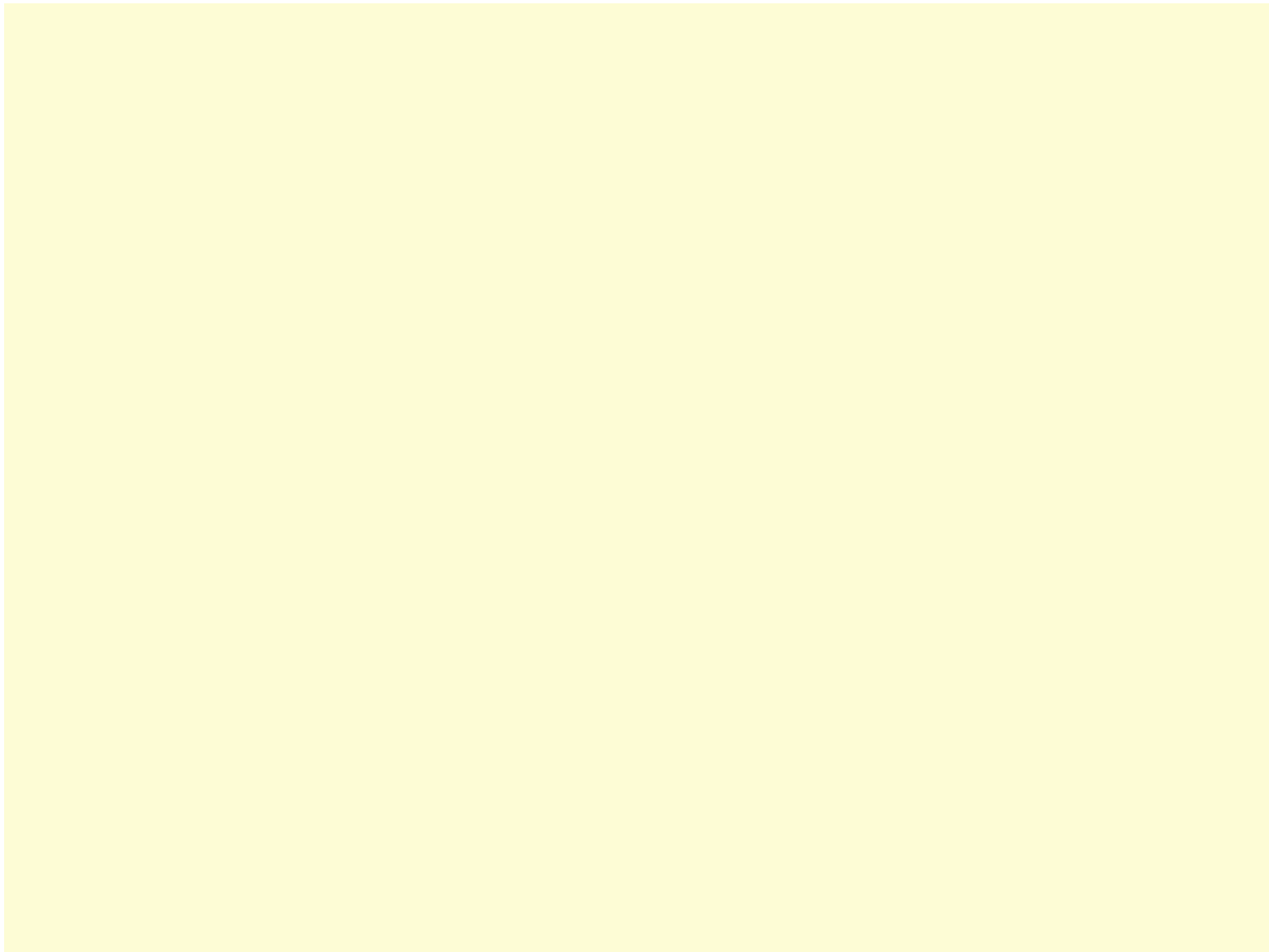
$$\begin{array}{r} 33.5674 \\ + 13.57 \\ \hline \end{array}$$



SUBTRACT


- Line up the decimals. You may need to add zeroes to the end of the first number and borrow as needed.

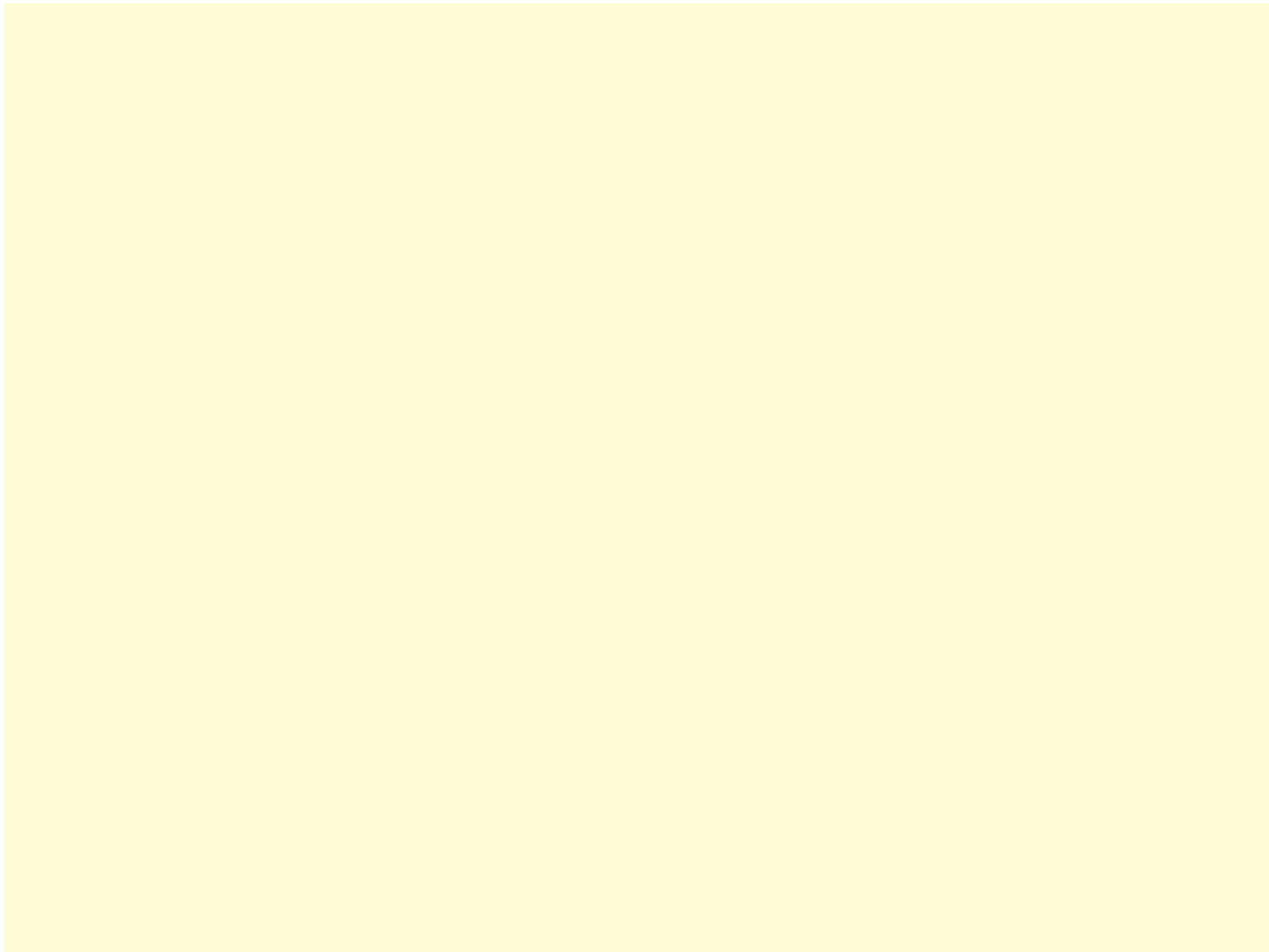
$$\begin{array}{r} 33.5600 \\ - 13.5723 \\ \hline \end{array}$$



MULTIPLY

- Multiply as you normally would. Count up the total number of places behind the decimal in both numbers. Place the decimal in the answer so that many places are behind it.

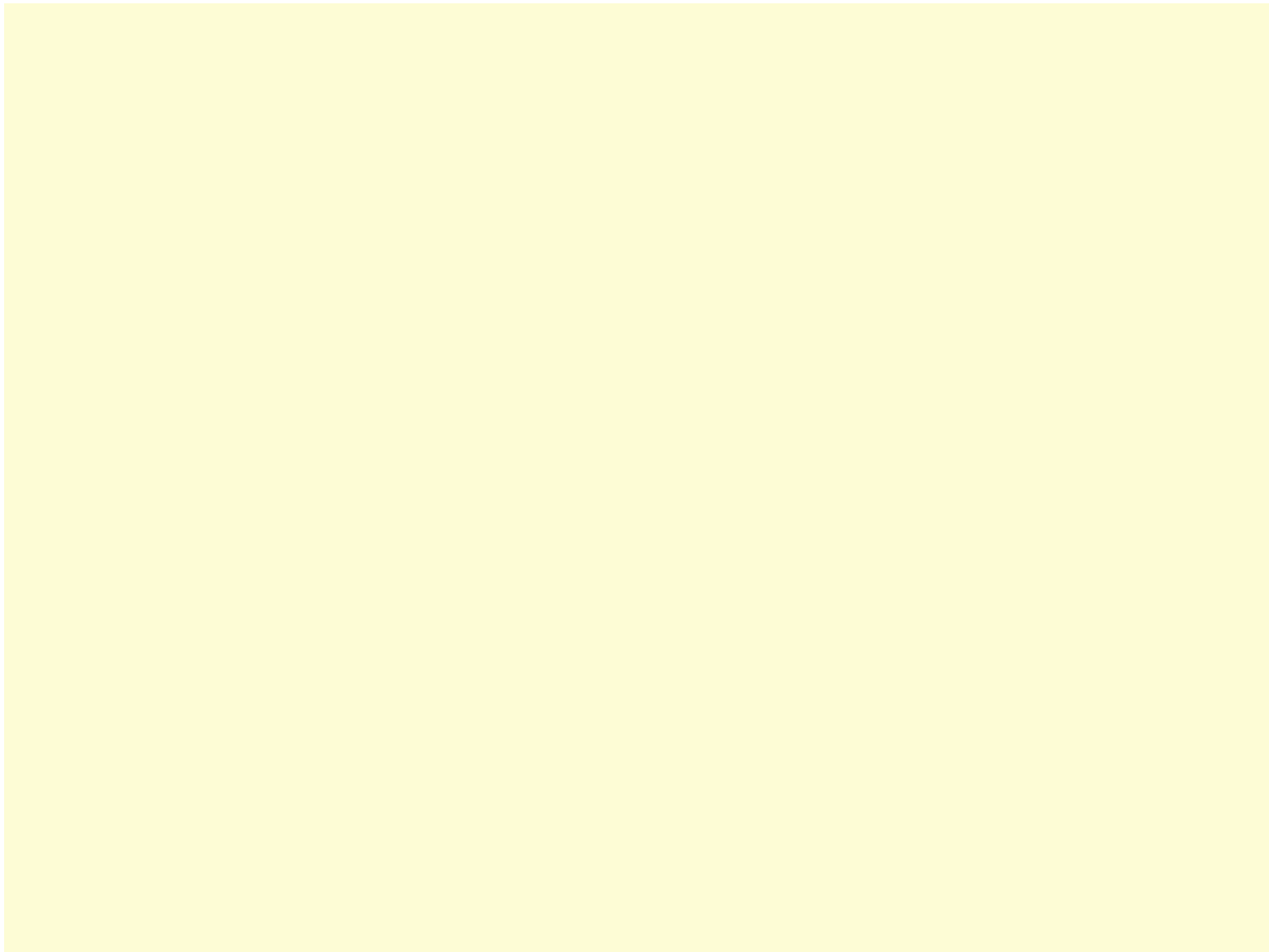
$$\begin{array}{r} 33.45 \\ \times 2.5 \\ \hline 83.625 \end{array}$$




DIVISION

- Set up the division problem as usual, but then you must move the decimal point on the divisor to the end. Then move the decimal inside the same number of places. Bring the decimal point straight up into the answer (quotient).

$$34.23 \quad | \quad 257.50$$



DIVISION: ADDING ZEROES

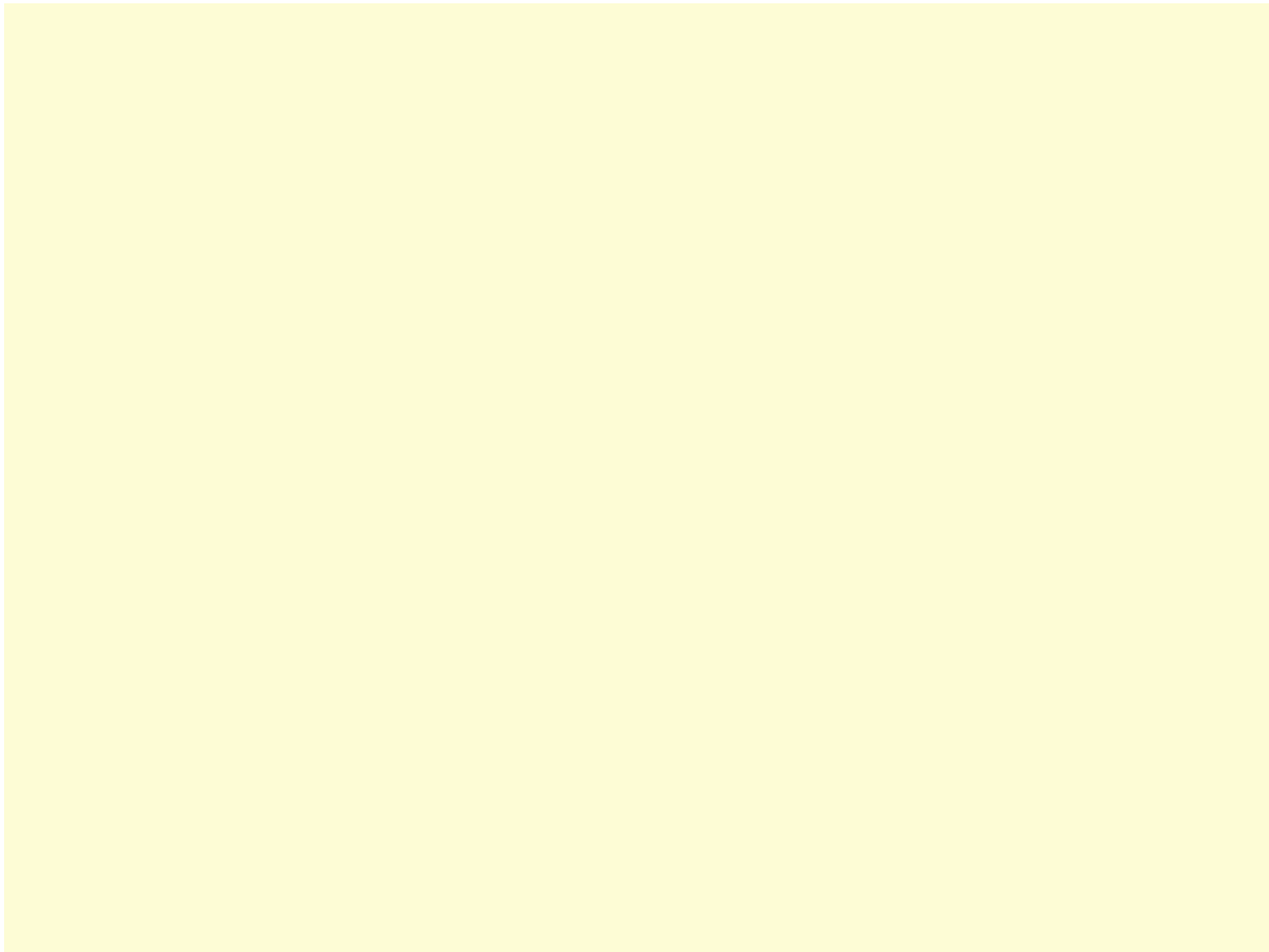
$$5 \div 23$$

$$23 \overline{) 5.00}$$

In this case, we are dividing a larger number into a smaller number. We need only remember that there is a decimal point at the end of any whole number, and that it is followed by as many zeroes as we need (as we did with subtracting). We bring the decimal point straight up and start dividing:

$$\begin{array}{r} .2 \\ 23 \overline{) 5.00} \\ \underline{46} \\ 140 \end{array}$$

Note: In health and some other fields, you may be expected to write a zero before the decimal point in a number like this simply to call attention to the decimal point.

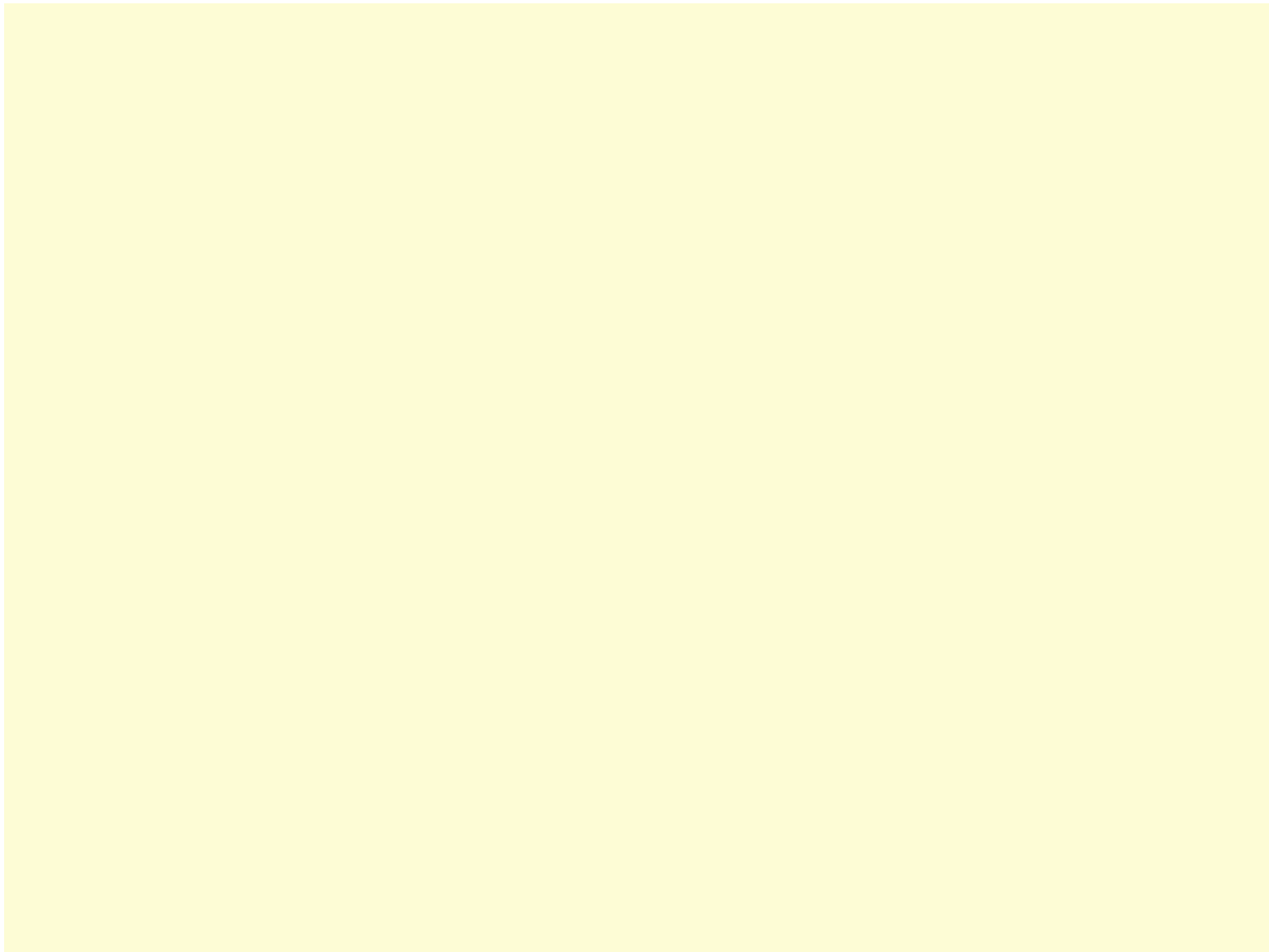


CONVERSIONS

- Fraction to Decimal: Treat it as a division problem.

$$\frac{3}{4} = 3 \div 4 = 4 \overline{) 3.75}$$

The image shows the conversion of the fraction 3/4 to a decimal. It is presented as a sequence of three expressions: the fraction 3/4, the division 3 divided by 4, and a long division problem. In the long division, the divisor is 4, the dividend is 3.00, and the quotient is .75. The numbers 3, 4, and 3.00 are in black, while the decimal point and the digits 75 in the quotient are in red.



CONVERSIONS

- Decimal to Fraction: Place the number over the place value of the last digit and reduce.

$$.75 = \frac{75}{100} = \frac{3}{4}$$

