Zero in Division

There are 525 pencils in the supply room. They are to be divided evenly among 5 classes. How many pencils will each class receive?

You will use division to find the answer. $525 \div 5 = n$

STEP 1:

Since 5 hundreds can be divided by 5, the first digit is in the hundreds place.

Compare 0<5

Divide.

$$\begin{array}{r} 1 \\ 5\overline{)525} \\ 5 \\ \hline 0 \end{array}$$

Multiply
5×1=5
Subtract
5–5=0

STEP 2:

Bring down the tens. Divide 1 ten. Since 5 > 2, write 0 in the quotient.

$$\begin{array}{r} 10 \\ 5\overline{)525} \\ 5 \\ \hline 02 \\ 0 \\ \hline 2 \end{array}$$

Multiply
5×0=0
Subtract
2–0=2

Compare
2<5

STEP 3:

Bring down the ones. Divide.

$$\begin{array}{r} 105 \\ 5\overline{)525} \\ 5 \\ \hline 02 \\ 0 \\ \hline 25 \\ 25 \\ \hline 0 \end{array}$$

Multiply
5×5=25
Subtract
25 – 25 = 0
Compare
0<5

So, each class will receive 105 pencils.

Grade 5