

Name _____

Date _____

Long Division of Large Numbers - Step-by-Step Lesson

a) Is 634,450 divisible by 25?

Explanation:

Step 1a) First we have to see what we have to calculate

$$634,450 \div 25$$

Step 2a) Look at the first two digits. The first two digits are more than 25. Start with the first 2 digits. Divide the ones.

2	
25) <u>634,450</u>	25 X 2 = 50
50	
134	63-50 = 13

Bring down thousands. Divide the thousands.

25	
25) <u>634,450</u>	25 X 6 = 125
50 ↓	
134	134- 125 = 9
125	
9	

Bring down the hundreds. Divide the hundreds.

253	
25) <u>634,450</u>	
50	25 X 3 = 75
134	
125	94 - 75 = 19
94	
75	
19	



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Bring down the tens. Divide the tens.

$$\begin{array}{r} 25378 \\ 25 \overline{) 634,450} \end{array}$$

$$\begin{array}{r} \underline{50} \\ 134 \\ \underline{125} \\ 94 \\ \underline{75} \downarrow \\ \mathbf{195} \\ \underline{175} \\ 20 \end{array}$$

$$\begin{array}{l} 25 \times 7 = 175 \\ 195 - 175 = 20 \end{array}$$

Bring down the ones and divide.

$$\begin{array}{r} 25378 \\ 25 \overline{) 634,450} \end{array}$$

$$\begin{array}{r} \underline{50} \\ 134 \\ \underline{125} \\ 94 \\ \underline{75} \\ 195 \\ \underline{175} \downarrow \\ 200 \\ \underline{200} \\ X \end{array}$$

Step 3a) The answer is 25,378.

