

Place the First Digit

When you use long division, it is important to place the first digit of the quotient in the correct place. You can use estimation and a place value to help you find where to place the first digit.

Tell where to place the first digit. Then divide.

$$7 \overline{)147}$$

<ul style="list-style-type: none"> Use compatible numbers to estimate. <p>$147 \div 7$ is about the same as $140 \div 7$.</p>	$14 \div 7 = 2$
<ul style="list-style-type: none"> $140 \div 7 = 20$, so the first digit is in the tens place. 	$140 \div 7 = 20$
<ul style="list-style-type: none"> Now place the first digit in the quotient in the tens place and divide. 	$\begin{array}{r} 21 \\ 7 \overline{)147} \\ \underline{14} \downarrow \\ 007 \\ \underline{7} \\ 0 \end{array}$

So, the first digit is in the tens place, and $147 \div 7 = 21$.

Tell where to place the first digit. Then divide.

$$667 \div 6$$

• See if the number in the hundreds place of 667 is larger than 6.

• If the number is smaller than the divisor, then you begin at the next place to the right: the tens place.

• If the number in the hundreds place is larger or equal to the divisor, then you can place the first digit in the hundreds place.

• Here, 6 is equal to 6, so the first digit will be in the hundreds place. Now divide.

$$\begin{array}{r} \underline{111} \\ 6 \overline{)667} \quad r1 \\ \underline{6} \quad \downarrow \\ 06 \quad \downarrow \\ \underline{06} \quad \downarrow \\ 007 \\ \underline{006} \\ 001 \end{array}$$

So, the first digit is in the hundreds place, and $667 \div 6 = 111 \text{ r}1$

Examples:

A- Divide.

1) $93 \text{ r} 4$

$$\begin{array}{r} \underline{93} \\ 6 \overline{)562} \\ \underline{-54} \\ 22 \\ \underline{-18} \\ 04 \end{array}$$

2) $98 \text{ r} 1$

$$\begin{array}{r} \underline{98} \\ 8 \overline{)785} \\ \underline{-72} \\ 65 \\ \underline{-64} \\ 01 \end{array}$$