Division – Rectangle Sections Method

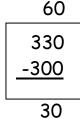
If the problem is- 5 330

5

330

 Ask "5 times what tens number gives an answer closest to 330 without going over?"

5



• $5 \times 60 = 300$ but $5 \times 70 = 350$, so 60 gives us the answer closest to 300 without going over.

5 330 30 -300

30

- Draw a second rectangle section to the right of the first section.
- Write a plus sign after the 60 between the two sections.
- Write 30, the difference from the first section, inside the second section.

5 330 30 -300 -30 30 0

- Ask, "5 times what number gives an answer closest to 30 without going over?"
- $5 \times 6 = 30$
- Write 6 at the top of the second section.
- Multiply 5 by 6 to get 30.
- Write 30 below the existing 30.
- Subtract 30 from 30 to get 0.
- Write the difference, 0, below the second rectangle.

60 + 6 = 66

5 330 30 -300 -30 30 0

- Add the quotients from each section to find the quotient: 60 + 6 = 66.
- So, $330 \div 5 = 66$.

Division- Expanded Notation Method

If the problem is-

- Ask "5 times what tens number gives an answer closest to 330 without going over"?
- Write 60 above the long-division sign.
- Multiply; $5 \times 60 = 300$.
- Write 300 under 330.

• Subtract: 330 - 300 = 30.

- Ask, "5 times what number gives an answer closest to 30 without going over?"
- Write 6 in the ones place above 60.

- Multiply: $5 \times 6 = 30$.
- Write 30 under 30, and then subtract.
- 30 30 = 0, so write 0 below the line.

$$\begin{array}{c}
 6 \\
 \hline
 60 \\
 \hline
 330 \\
 300 \\
 \end{array}$$

0

• Add: 60 + 6 = 66.

• This means $330 \div 5 = 66$.

- <u>- 300</u> 30
 - <u>- 30</u>
 - 0

Division- Digit-by-Digit Method

If the problem is-

- Ask, "5 times what number gives an answer closest to 33 without going over?"
- Write 6 above the second 3 in 33.
- Multiply: $5 \times 6 = 30$.
- Write 30 under 33.

• Subtract: 33 - 30 = 3.

 Bring down the ones-place zero from the dividend to make the number large enough to divide by 5.

- Ask, "5 times what number gives an answer closest to 30 without going over?"
- Write 6 above the 3 in 30.

- Multiply: $5 \times 6 = 30$.
- Subtract 30 from 30.
- The difference is 0, so write 0 below the line.

Division- Partial Quotients Method

If the problem is-

- What multiple of ten should we try first?
- 60; $5 \times 60 = 300$
- Write 60 to the right of the long line.
- We multiply: $5 \times 60 = 300$ and write 300 under the dividend, making sure to line up the place value.

- Subtract: 330 300 = 30.
- Write 30 under 300, making sure to line up the place value.

- Ask, "How many 5s are in 30?"
- 6; $5 \times 6 = 30$.
- Write 6 to the right of the long line.
- We multiply: $5 \times 6 = 30$ and write 30 under the left-over dividend, making sure to line up the place value.

- Subtract: 30 30 = 0.
- Write the 0 under the 30, making sure to line up the place value.
- Add the partial quotients to find the quotient.