

Lesson 2 Reasoning and Problem Solving

L.O: I am learning to reason and solve problems involving the four operations.

Try your best – it is all we can ask for! 😊

Key vocabulary: addition, subtraction, multiplication, division, calculate, find, missing, inverse, operation, reasoning, solve, difference.	Your answer																		
<p style="text-align: center; background-color: #FFD700; border-radius: 10px; padding: 5px;">Here is a bar model.</p> <div style="text-align: center; margin: 10px 0;"> <table border="1" style="margin: auto;"> <tr> <td style="width: 50px; height: 20px; background-color: #FFD700;">A</td> <td style="width: 150px; height: 20px; background-color: #FFA07A;">B</td> </tr> <tr> <td colspan="2" style="text-align: center; background-color: #90EE90; padding: 5px;">531, 255</td> </tr> </table> </div> <p>A is an odd number which rounds to 100,000 to the nearest ten thousand. It has a digit total of 30.</p> <p>B is an even number which rounds to 400,000 to the nearest hundred thousand. I has a digit total of 9.</p> <p>A and B are both multiples of 5 but end in different digits.</p> <p style="color: purple; text-align: center;">What are possible values of A and B?</p>	A	B	531, 255																
A	B																		
531, 255																			
<p style="text-align: center; background-color: #008000; color: white; border-radius: 15px; padding: 10px; margin-bottom: 10px;">Place the digits in the boxes to make the largest product.</p> <div style="display: flex; justify-content: center; gap: 10px; margin-bottom: 10px;"> <div style="border: 1px solid #00AEEF; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">1</div> <div style="border: 1px solid #00AEEF; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">2</div> <div style="border: 1px solid #00AEEF; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">3</div> <div style="border: 1px solid #00AEEF; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">4</div> <div style="border: 1px solid #00AEEF; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">6</div> <div style="border: 1px solid #00AEEF; border-radius: 10px; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">7</div> </div> <div style="margin-bottom: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">x</td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> </tr> <tr style="border-top: 2px solid black;"> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> <td style="width: 30px; height: 30px;"></td> </tr> </table> </div>							x												
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<p style="text-align: center; background-color: #FF8C00; border-radius: 10px; padding: 5px; margin-bottom: 10px;">Here are two calculation cards.</p> <div style="margin-bottom: 10px;"> <div style="border: 1px solid #FFD700; border-radius: 15px; padding: 10px; text-align: center; margin-bottom: 10px;"> $A = 506 \div 11$ </div> <div style="border: 1px solid #FFD700; border-radius: 15px; padding: 10px; text-align: center;"> $B = 845 \div 13$ </div> </div> <p style="color: purple;">Find the difference between A and B.</p>																			

Spot the Mistake

$$656 \div 16 =$$

$$\begin{array}{r} 41 \\ 16 \overline{) 656} \\ \underline{- 640} \\ 16 \\ \underline{- 16} \\ 0 \end{array}$$

Which question is harder?

- $1,965 \div 13$
- $1,965 \div 15$

Explain why.

Class 6 are calculating two thousand, six hundred and thirty-three divided by twelve.



Malachi

I know there will be a remainder without calculating.

Is he correct? Explain your answer.

Using the number 3,236, how many numbers up to 20 does it divide by without a remainder.



Is there a pattern?

Calculate:

- $1,248 \div 48$
- $1,248 \div 24$
- $1,248 \div 12$

What did you do each time?

What was your strategy?

What do you notice? Why?