

Reasoning and Problem Solving

Step 3: Round to the Nearest 100

National Curriculum Objectives:

Mathematics Year 4: (4N4b) [Round any number to the nearest 10, 100 or 1,000](#)

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Use the bar model to determine what the missing number could be when rounded to the nearest 100 with the tens digit underlined. Numbers represented in numerals.

Expected Use the bar model to determine what the missing number could be when rounded to the nearest 100. Numbers represented in numerals or words.

Greater Depth Use the bar model to determine what the missing number could be when rounded to the nearest 100. Numbers represented in a combination of numerals, words or Roman numerals.

Questions 2, 5 and 8 (Reasoning)

Developing Determine whether a statement about rounding to the nearest 100 with the tens digit underlined is correct and explain why. Numbers represented in numerals.

Expected Determine whether a statement about rounding to the nearest 10 or 100 is correct and explain why. Numbers represented in numerals and words.

Greater Depth Determine whether a statement about rounding to the nearest 10 or 100 is correct and explain why. Numbers represented in numerals, words or Roman numerals.

Questions 3, 6 and 9 (Problem Solving)

Developing Explore all the possible ways that the part whole model could be complete. Numbers represented in numerals.

Expected Explore all the possible ways that the part whole model could be complete. Numbers represented in numerals and words.

Greater Depth Explore all the possible ways that the part whole model could be completed. Numbers represented in numerals, words or Roman numerals.

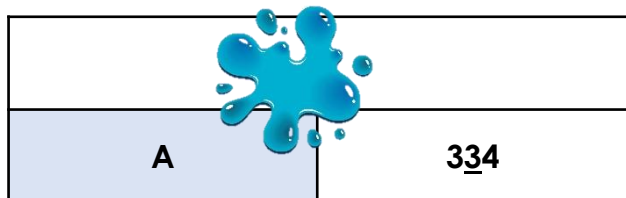
More [Year 4 Place Value](#) resources.

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Round to the Nearest 100

Round to the Nearest 100

1a. Sarah has represented a number using a bar model. When rounded to the nearest 100, the number rounds to 400.

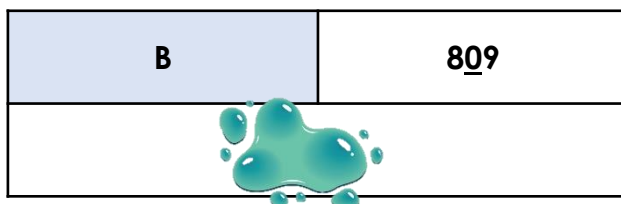


A is a multiple of 10. What could A be?



PS

1b. Rafael has represented a number using a bar model. When rounded to the nearest 100, the number rounds to 800.



B is a multiple of 10. What could B be?



PS

2a. Owen says,



If I round $7\text{4}\underline{9}$ to the nearest 100, the answer is 700. If I round $7\text{5}\underline{0}$ to the nearest 100, the answer is the same.

Do you agree? Explain why.



R

2b. Olga says,



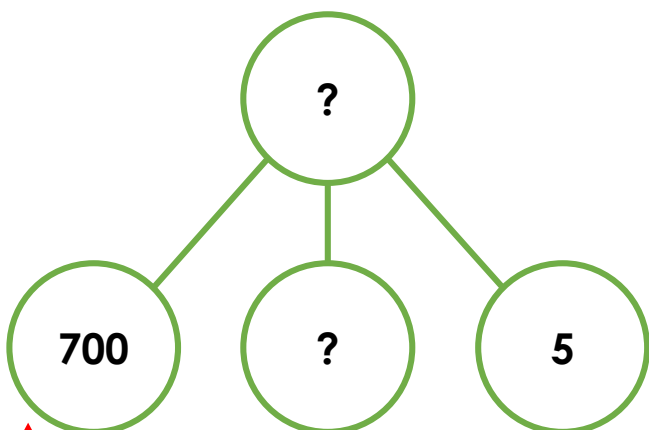
If I round $3\text{5}\underline{0}$ and $4\text{5}\underline{0}$ to the nearest 100, both answers will be 400 because they are the same amount away from 400.

Do you agree? Explain why.



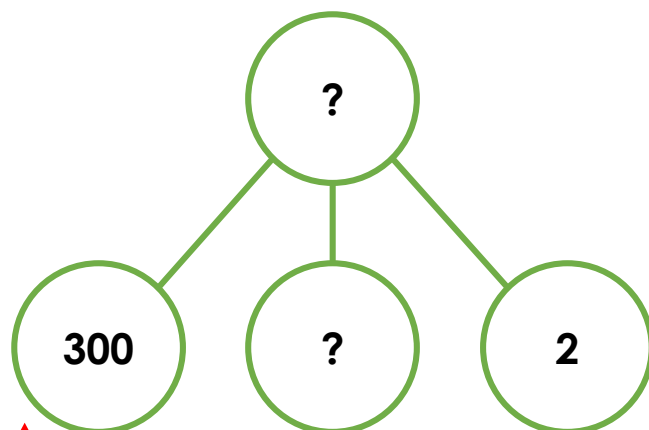
R

3a. This part whole model has the whole rounded to the nearest hundred. What could the two missing numbers be?



PS

3b. This part whole model has the whole rounded to the nearest hundred. What could the two missing numbers be?



PS

Round to the Nearest 100

4a. Rachel has represented a number using a bar model. When rounded to the nearest 100, the number rounds to 300.

A	three hundred and twenty-one

A is a multiple of 5. What could A be?



PS

Round to the Nearest 100

4b. Mitchell has represented a number using a bar model. When rounded to the nearest 100, the number rounds to 700.

B	six hundred and thirty-six

B is a multiple of 5. What could B be?



PS

5a. Hasaan says,



If I round six hundred and ninety-five to the nearest 10 or 100, I will get the same answer.

Do you agree? Explain why.



R

5b. Juliette says,



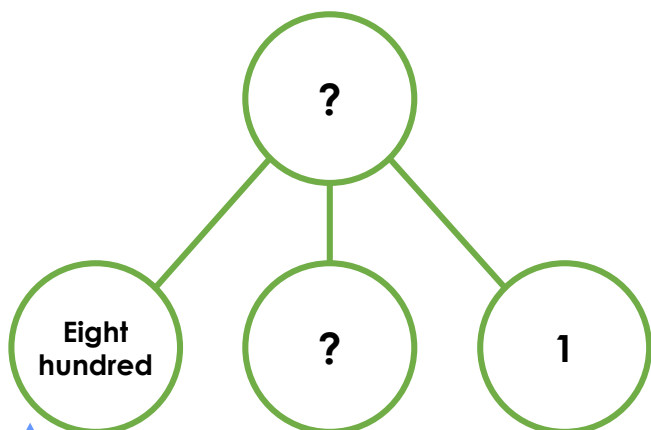
If I round ninety-four to the nearest 10 or 100, I will get the same answer.

Do you agree? Explain why.



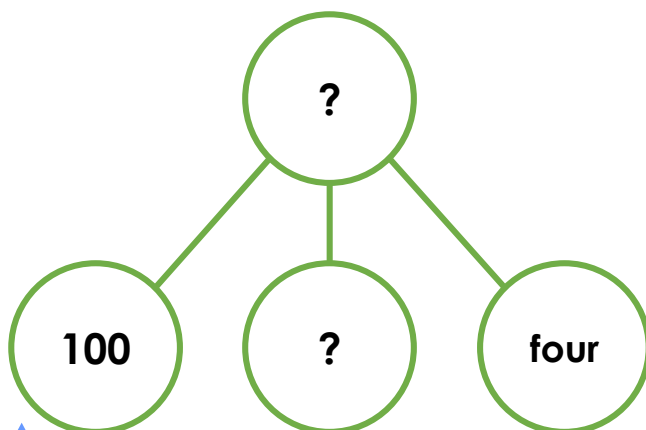
R

6a. This part whole model has the whole rounded to the nearest hundred. What could the two missing numbers be?



PS


6b. This part whole model has the whole rounded to the nearest hundred. What could the two missing numbers be?



PS

Round to the Nearest 100

7a. Matilda has represented a number using a bar model. When rounded to the nearest 100, the number rounds to 400.

		
A	IX	393


A is a multiple of 5. What could A be?



PS

Round to the Nearest 100

7b. Taylor has represented a number using a bar model. When rounded to the nearest 100, the number rounds to 500.

XVII	B	four hundred and five
		

B is a multiple of 10. What could B be?



PS

8a. Sufyan says,



Any number that ends with a IV rounded to the nearest 10 or 100 will always round down.

Do you agree? Explain why.



R

8b. Yasmin says,



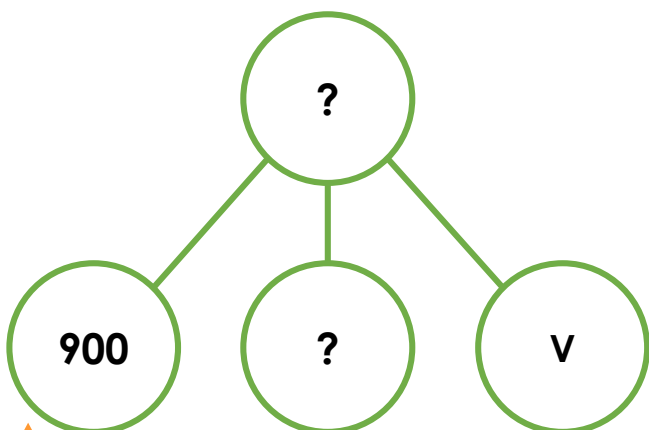
If I round five hundred and fifty-five to the nearest 100, the answer is six hundred. If I round it to the nearest 10, the answer is the same.

Do you agree? Explain why.



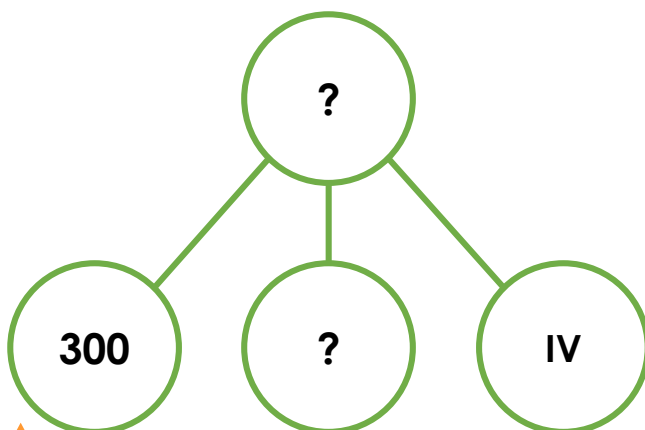
R

9a. This part whole model has the whole rounded to the nearest hundred. What could the two missing numbers be?



PS

9b. This part whole model has the whole rounded to the nearest hundred. What could the two missing numbers be?



PS

Reasoning and Problem Solving

Round to the Nearest 100

Developing

- 1a. Multiples of 10 from 20 to 110.
- 2a. No. Owen is correct that 749 rounds down to 700, but because there are 5 tens in 750, it rounds up, so 750 rounds to 800.
- 3a. Various answers, for example: If the tens are between 0 and 4, the whole number will be 700. If the tens are between 5 and 9, the whole number will be 800.

Expected

- 4a. 5, 10, 15, 20, 25
- 5a. Hasaan is correct because 695 rounded to the nearest 10 is 700 as there are 5 ones, so it rounds up. 695 to the nearest 100 is also 700 as there are 9 tens so it also rounds up.
- 6a. Various answers, for example: If the tens are between 0 and 4, the whole number will be 800. If the tens are between 5 and 9, the whole number will be 900.

Greater Depth

- 7a. Multiples of 5 from 5 to 45.
- 8a. No. Sufyan is correct that numbers ending in 4 will round down to the nearest 10. However, some numbers ending in 4 could round up if they are rounded to the nearest 100. For example 164 rounds up to 200 because it has 6 tens.
- 9a. Various answers, for example: If the tens are between 0 and 4, the whole number will be 900. If the tens are between 5 and 9, the whole number will be 1,000.

Reasoning and Problem Solving

Round to the Nearest 100

Developing

- 1b. 10, 20, 30, 40
- 2b. No. Olga is correct that 350 rounds up to 400 because there are 5 tens. However, the same rule applies for 450, which means that 450 rounds up to 500.
- 3b. Various answers, for example: If the tens are between 0 and 4, the whole number will be 300. If the tens are between 5 and 9, the whole number will be 400.

Expected

- 4b. Multiples of 5 from 15 to 110.
- 5b. Juliette is incorrect because 94 to the nearest 10 is 90 as there are only 4 ones. 94 to the nearest 100 is 100 as there are 9 tens.
- 6b. Various answers, for example: If the tens are between 0 and 4, the whole number will be 100. If the tens are between 5 and 9, the whole number will be 200.

Greater Depth

- 7b. Multiples of 10 from 30 to 120.
- 8b. No. Yasmin is correct that 555 rounded to the nearest 100 is 600 as it has 5 tens. However, 555 rounded to the nearest 10 would be 560, not 600.
- 9b. Various answers, for example: If the tens are between 0 and 4, the whole number will be 300. If the tens are between 5 and 9, the whole number will be 400.