

Reasoning and Problem Solving

Step 7: Numbers to a Million

National Curriculum Objectives:

Mathematics Year 5: (5N2) [Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit](#)

Mathematics Year 5: (5N6) [Solve number problems and practical problems that involve \(5N1\) \(5N2\) \(5N4\) \(5N5\)](#)

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Find and explain an error in a place value chart showing numbers to 1,000,000. Using multiples of 10, 100 or 1,000

Expected Compare digits to a spoken version of a number up to 1,000,000. Identify errors and give the correct wording.

Greater Depth Compare digits to a spoken version of a number up to 1,000,000 using unconventional partitioning. Identify errors and give the correct wording.

Questions 2, 5 and 8 (Problem Solving)

Developing Complete a part whole model to represent a number up to 1,000,000 in digits, using conventional partitioning using multiples of 10, 100 or 1,000.

Expected Complete a part whole model to represent a number up to 1,000,000 in words, using conventional partitioning, where two parts are missing.

Greater Depth Complete a part whole model to represent a number up to 1,000,000 in words, using unconventional partitioning, where two parts are missing.

Questions 3, 6 and 9 (Problem Solving)

Developing Identify if a number up to 1,000,000 is accurately represented using a radar chart. Conventional partitioning using multiples of 10, 100 or 1,000.

Expected Identify if a number up to 1,000,000 is accurately represented using a radar chart. Conventional partitioning.

Greater Depth Identify if a number up to 1,000,000 is accurately represented using a radar chart. Unconventional partitioning.

More [Year 5 Place Value](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Numbers to a Million

Numbers to a Million

1a. Jena is representing the number 718,660 in a place value chart.

| hundred thousands | ten thousands | thousands | hundreds | tens | ones |
|-------------------|---------------|-----------|-----------|-----------|-----------|
| 7 circles | 1 circle | 8 circles | 6 circles | 6 circles | 0 circles |

1b. Emma is representing the number 847,200 in a place value chart.

| hundred thousands | ten thousands | thousands | hundreds | tens | ones |
|-------------------|---------------|-----------|-----------|-----------|-----------|
| 8 circles | 4 circles | 7 circles | 0 circles | 2 circles | 0 circles |

Is she correct? Explain why.



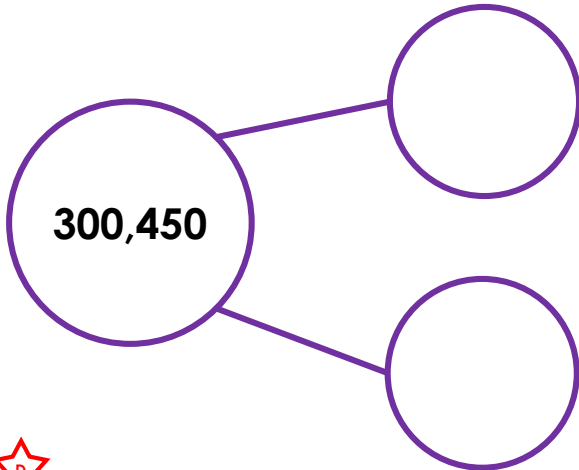
R

Is she correct? Explain why.



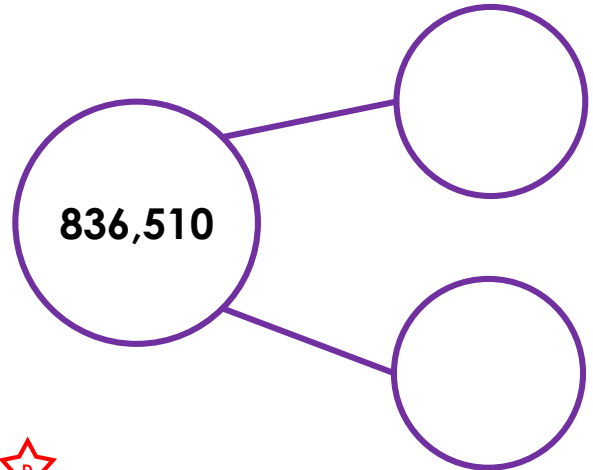
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2a. Complete the part whole model. Find more than one way.



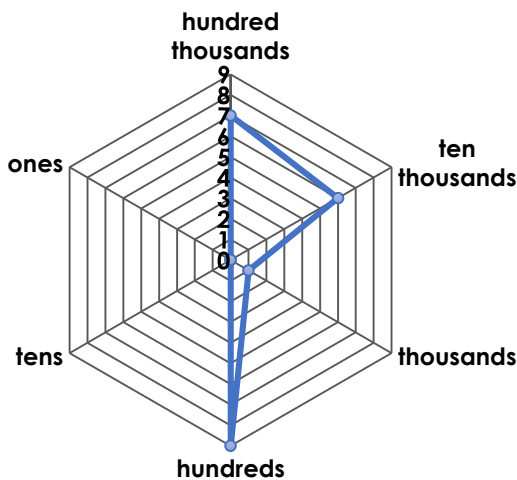
PS

2b. Complete the part whole model. Find more than one way.



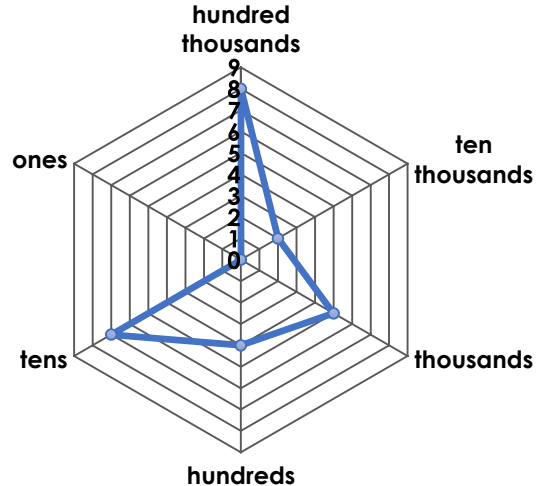
PS

3a. Does the radar chart represent the number 761,900? If not, correct it.



PS

3b. Does the radar chart represent the number 825,500? If not, correct it.



PS

Numbers to a Million

Numbers to a Million

4a. Erik is reading the number 430,980.



Forty-three thousand and ninety-eight tens.

Is he correct? Explain your answer.



R

4b. Bea is reading the number 840,832.



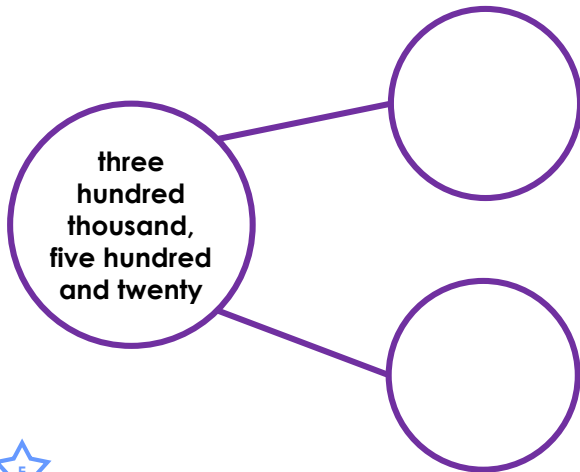
Eight million, four thousand, eight hundred and thirty-two.

Is she correct? Explain your answer.



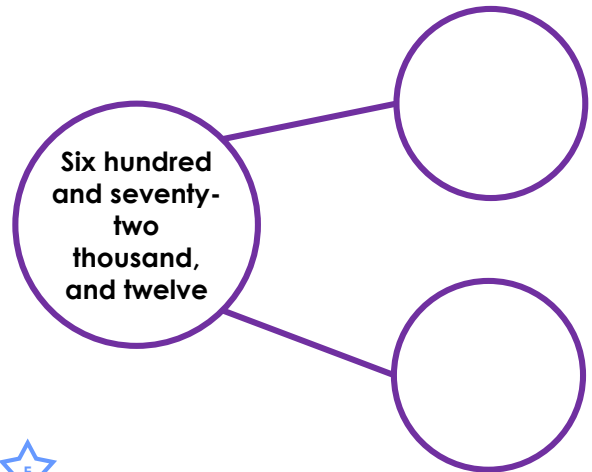
R

5a. Complete the part whole model. Find more than one way.



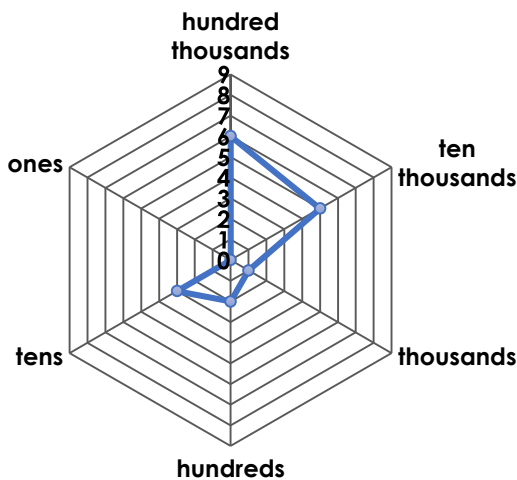
PS

5b. Complete the part whole model. Find more than one way.



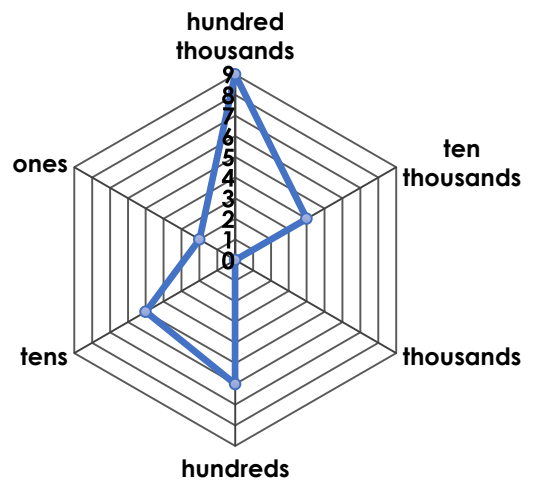
PS

6a. Does the radar chart represent the number 651,230? If not, correct it.



PS

6b. Does the radar chart represent the number 951,652? If not, correct it.



PS

Numbers to a Million

7a. Daniel is reading the number 608,643.



Sixty thousand,
eighty-six
hundreds and 43
ones.

Is he correct? Explain your answer.



R

Numbers to a Million

7b. Ashley is reading the number 984,904.



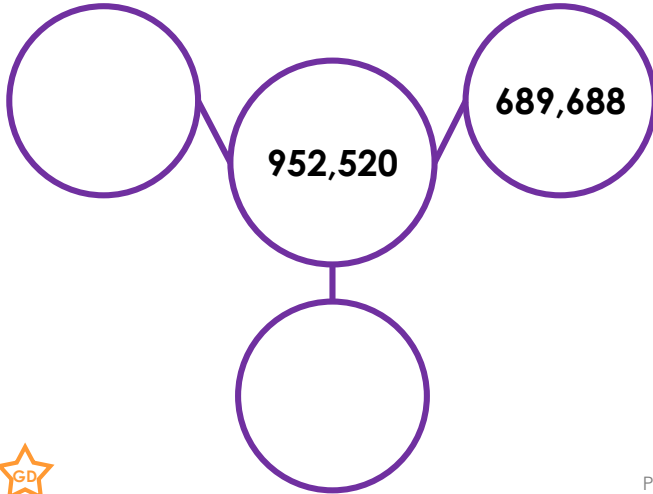
Ninety-eight ten
thousands, 400
tens and nine
hundred and 4
ones.

Is she correct? Explain your answer.



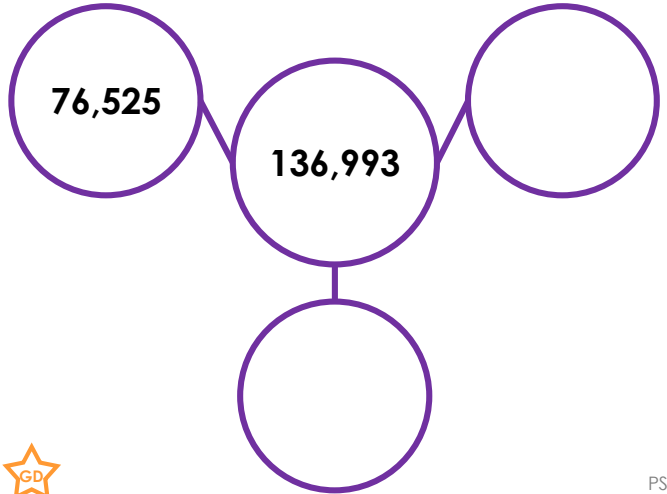
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8a. Complete the part whole model.
Find more than one way.



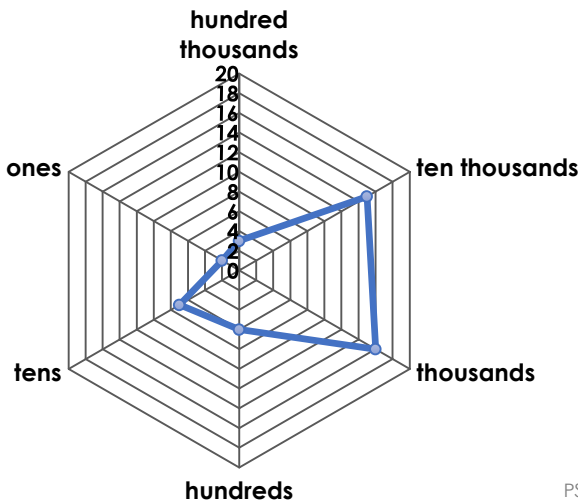
PS

8b. Complete the part whole model.
Find more than one way.



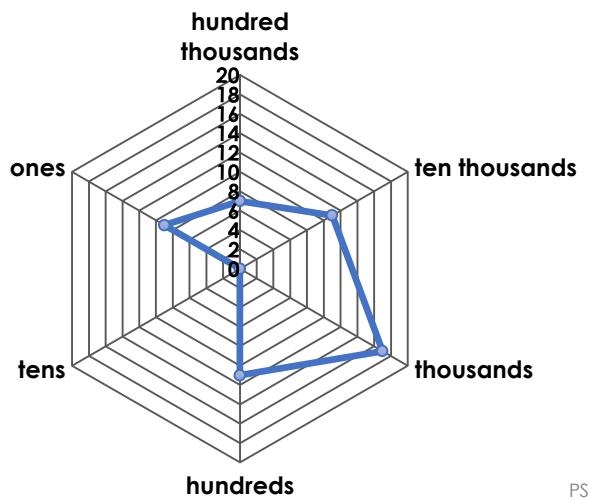
PS

9a. Does the radar chart represent the
number 466,672? If not, correct it.



PS

9b. Does the radar chart represent the
number 811,179? If not, correct it.



PS

Reasoning and Problem Solving Numbers to a Million

Developing

- 1a. She is correct as each column in the number and the place value chart match.
2a. Various answers, for example: 200,000 + 100,450
3a. Yes

Expected

- 4a. Erik has misread the hundreds of thousands as tens of thousands. He has also misread the hundreds. Erik should say 'four hundred and thirty thousand, nine hundred and eighty'.
5a. Various answers, for example: two hundred thousands + one hundred thousand, five hundred and twenty
6a. Yes

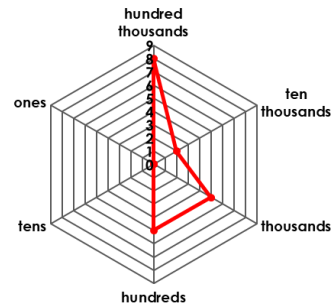
Greater Depth

- 7a. Daniel has misread the hundreds of thousands as tens of thousands. Daniel could say 'Six hundred thousand, eight-hundred and forty three ones'.
8a. Various answers, for example: 62,770 + 200,062
9a. Yes - 466,672

Reasoning and Problem Solving Numbers to a Million

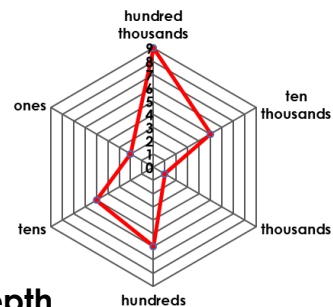
Developing

- 1b. She is not correct as the place value chart shows two counters in the tens column rather than the hundreds column.
2b. Various answers, for examples: 400,000 and 436,510
3b. No



Expected

- 4b. Bea has misread the hundreds of thousands as millions and the tens of thousands as thousands. Bea should say 'eighty hundred and forty thousand, eight hundred and thirty-two'.
5b. Various answers, for example: two hundred and fifty thousand and twelve + four hundred and twenty two thousand
6b. No



Greater Depth

- 7b. Ashley is correct as ninety-eight ten thousands has the same value as nine hundred and eighty thousand. 400 tens has the same value as 4,000.
8b. Various answers, for example: 40,000 + 20,468
9b. No

