

Reasoning and Problem Solving

Step 6: Round Within 100,000

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: (5N4) [Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000](#)

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

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Use four digit cards to create numbers which round to a given number (rounding to 1,000). Using numerals only.

Expected Use five digit cards to create numbers which round to a given number (rounding to 10,000). Using numerals and words.

Greater Depth Use six digit cards to create numbers which round to a given number (rounding to 100). Using numerals, Roman numerals and words.

Questions 2, 5 and 8 (Reasoning)

Developing Compare two statements and explain any errors in rounding a 5-digit number to the nearest 10,000. Using numerals only.

Expected Compare three statements and explain any errors in rounding a 5-digit number to the nearest 10. Using numerals and words.

Greater Depth Compare three statements and explain any errors in rounding a 6-digit number to the nearest 10. Using numerals, Roman numerals and words.

Questions 3, 6 and 9 (Reasoning)

Developing Find the odd one out from three 5-digit numbers by rounding to the nearest 1,000 or 10,000. Using numerals only.

Expected Find the odd one out from four 5-digit numbers by rounding to the nearest 10, 100, 1,000 or 10,000. Using numerals and words.

Greater Depth Find the odd one out from five 6-digit numbers by rounding to the nearest 10, 100, 1,000 or 10,000. Using numerals, Roman numerals and words.

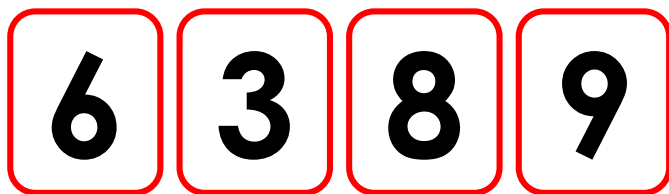
More [Year 5 Place Value](#) resources.

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

Round Within 100,000

Round Within 100,000

1a. Using all 4 digit cards, write down all the numbers you can create which round to 9,000 when rounded to the nearest 1,000.



PS

1b. Using all 4 digit cards, write down all the numbers you can create which round to 3,000 when rounded to the nearest 1,000.



PS

2a. The children are rounding the number 46,085 to the nearest 10,000.

It rounds to 40,000.



David



Theresa

It rounds to 50,000.

Who is correct? Explain your answer.



R

2b. The children are rounding the number 52,314, to the nearest 10,000.

It rounds to 50,000.



Ffion



Tierney

It rounds to 60,000.

Who is correct? Explain your answer.



R

3a. Which is the odd one out?

17,032

1,700

16,899

Explain your choice.



R

3b. Which is the odd one out?

51,999

52,883

52,009

Explain your choice.

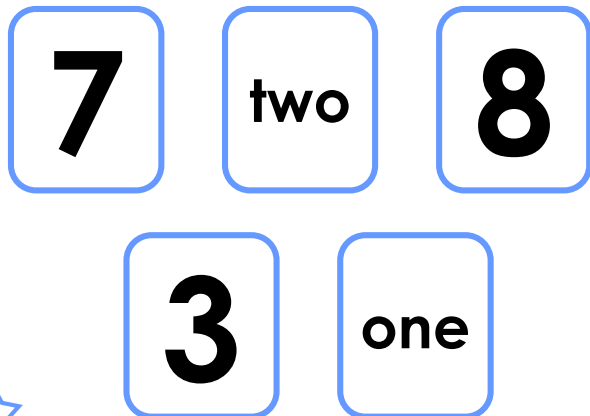


R

Round Within 100,000

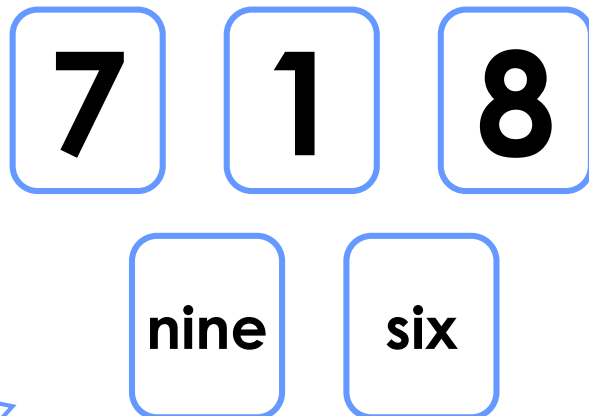
Round Within 100,000

4a. Using all 5 digit cards, write down all the numbers you can create which round to 33,000 when rounded to the nearest 1,000.



PS

4b. Using all 5 digit cards, write down all the numbers you can create which round to 72,000 when rounded to the nearest 1,000.



PS

5a. The children are rounding the number 25,984 to the nearest 10.

My answer is 25,980.



Jamie



Saff

I got twenty-five thousand, nine hundred.

I think it is 25,800.



Emmy

Who is correct? Explain your answer.



R

5b. The children are rounding the number 72,657 to the nearest 10.

It rounds to 72,600.



Zahara



Dan

My answer is 73,000.

I found seventy-two thousand, six hundred and sixty.



Dee

Who is correct? Explain your answer.



R

6a. Which is the odd one out?

54,872

fifty-four thousand, eight hundred and eighty-three

54,899

fifty-four thousand, eight hundred and forty-eight

Explain your choice.



R

6b. Which is the odd one out?

eight hundred and seventy-two

1,034

1,499

one thousand, five hundred and one

Explain your choice.



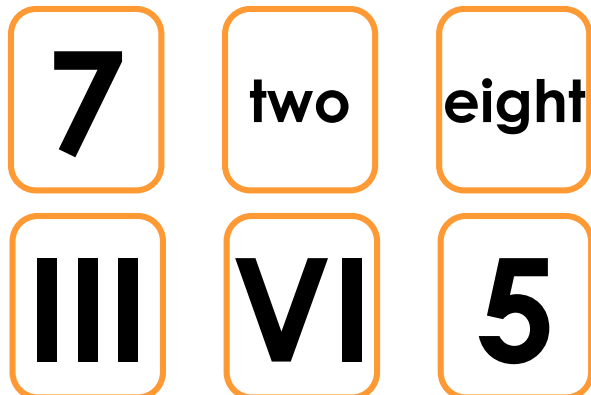
R

Round Within 100,000

Round Within 100,000

7a. Using 5 of these 6 digit cards each time, write down all the numbers you can create which round to 82,600 when rounded to the nearest 100.

7b. Using 5 of these 6 digit cards each time, write down all the numbers you can create which round to 42,800 when rounded to the nearest 100.



PS



PS

8a. The children are rounding the number MMMCMLXXXVI to the nearest 10.

8b. The children are rounding the number MMDCCLXIX to the nearest 10.

My answer is 3,890.



J'nay

It's definitely 2,770.



Talia

Libby

I think it is four thousand.



I know it is 3,990.



Leya

Si

I'd say it's two thousand.



I think it should be 2,760.



Artie

Who is correct? Explain your answer.

Who is correct? Explain your answer.



R



R

9a. Which is the odd one out?

three thousand, five hundred and twelve

MMMDXX

3,483

MMMCDLIII

three thousand, five hundred and sixty-nine

3,499

Explain your choice.

9b. Which is the odd one out?

2,058

two thousand, one hundred and forty-seven

2,196

two thousand and eighty-three

MMCXI

MMXCVI

Explain your choice.



R



R

Reasoning and Problem Solving Round Within 100,000

Developing

- 1a. 8,693; 8,639; 8,963; 8,936; 9,386; 9,368
2a. Theresa is correct. David has rounded the 6 thousands down, but 6 rounds up.
3a. The odd one out is 1,700. The other numbers round to 17,000 when rounded to the nearest thousand.

Expected

- 4a. 32,781; 32,718; 32,817; 32,871
5a. Jamie is correct. 25,984 when rounded to the nearest ten is 25,980.
6a. 54,848 is the odd one out. It would round to 54,800 when rounding to the nearest hundred. The others round to 54,900.

Greater Depth

- 7a. 82,563; 82,635; 82,567; 82,576; 82,573; 82,637
8a. Leya is correct because the number given is 3,986, which rounds to 3,990 when rounded to the nearest 10.
9a. 3,569 is the odd one out. The others round to the 3,500 to the nearest hundred.

Reasoning and Problem Solving Round Within 100,000

Developing

- 1b. 2,930; 2,903; 3,029; 3,092; 3,290; 3,209
2b. Ffion is correct. Tierney has rounded the 2 thousands up, but 2 rounds down.
3b. The odd one out is 52,883. The other numbers round to 52,000 when rounded to the nearest thousand.

Expected

- 4b. 71,698; 71,689; 71,896; 71,869; 71,986; 71,968
5b. Dee is correct. 72,657 to the nearest 10 is 72,660.
6b. 1,501 is the odd one out as it rounds to 2,000 while the others round to 1,000 when rounding to the nearest thousand.

Greater Depth

- 7b. 42,807; 42,806; 42,760; 42,780; 42,768; 42,786
8b. Talia is correct because the number given is 2,769, which rounds to 2,770 when rounded to the nearest 10.
9b. 2,196 is the odd one out. The others round to 2,100 when rounded to the nearest 100.