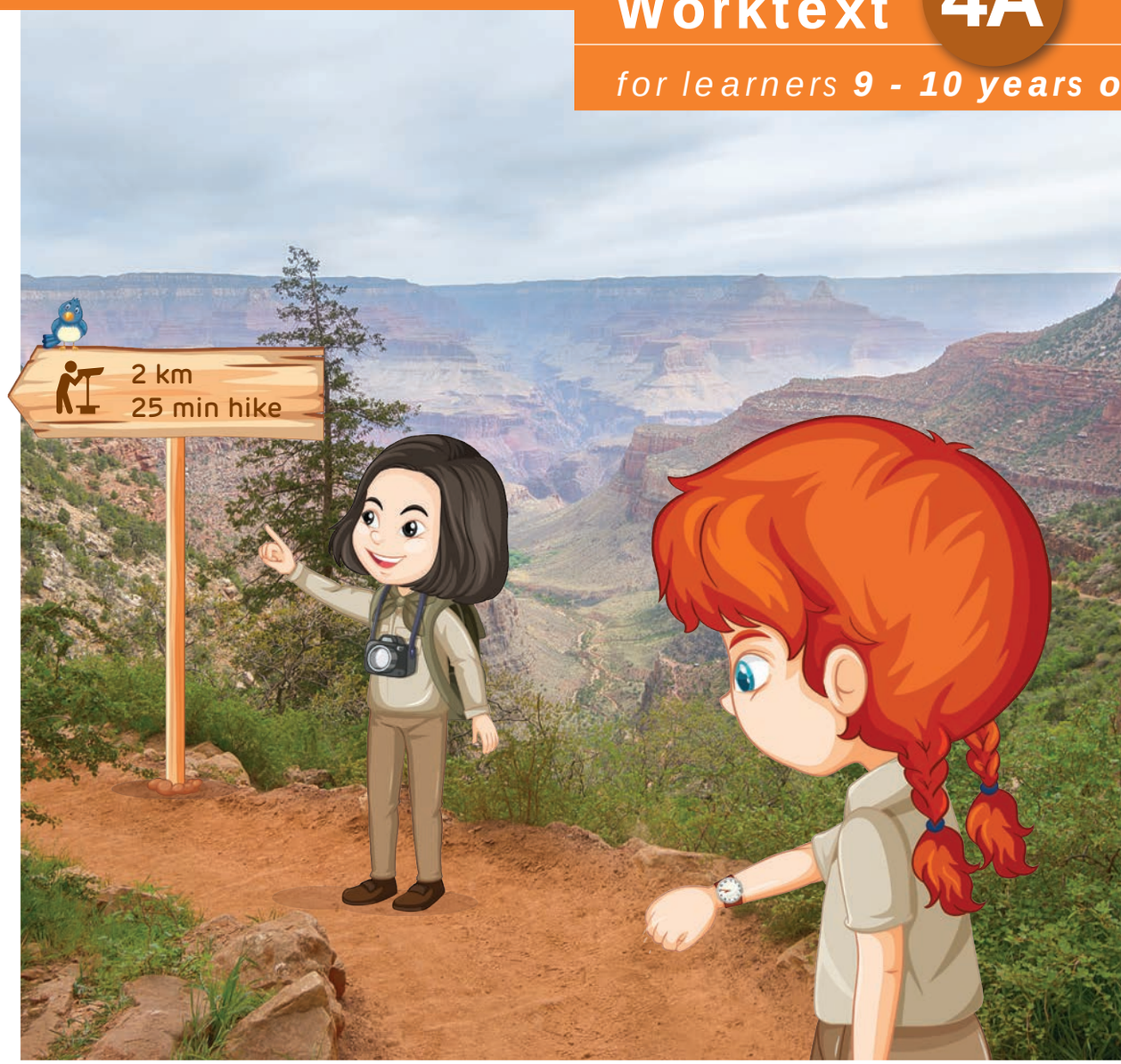
Let's Do MATHEMATICS

Worktext 4A

for learners ***9 - 10 years old***



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Let's Do Mathematics

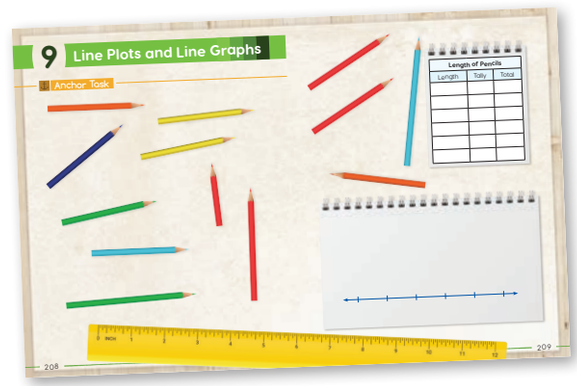
Let's Do Mathematics is a series covering levels K-6 and is fully aligned to the United States Common Core State Standards (USCCSS). Each level consists of two books (Book A and Book B) and combines textbook-style presentation of concepts as well as workbook practice.

Central to the USCCSS is the promotion of problem-solving skills and reasoning. Let's Do Mathematics achieves this by teaching and presenting concepts through a problem-solving based pedagogy and using the concrete-pictorial-abstract (CPA) approach. Learners acquire knowledge and understanding of concepts through a guided progression beginning with concrete examples and experiences which then flow into pictorial representations and finally mastery at the abstract and symbolic level. This approach ensures that learners develop a fundamental understanding of concepts rather than answering questions by learned procedures and algorithms.

Key features of the series include:

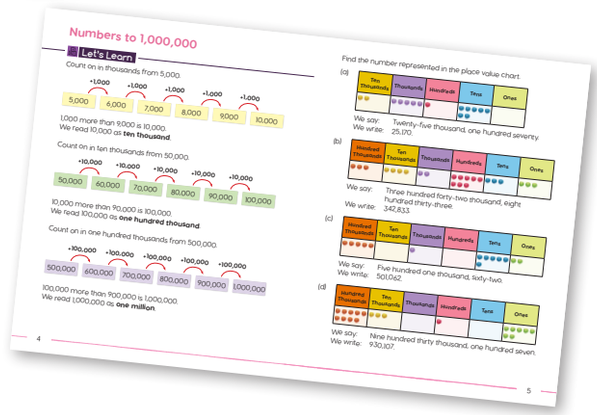
Anchor Task

Open-ended activities serve as the starting point for understanding new concepts. Learners engage in activities and discussions to form concrete experiences before the concept is formalized.



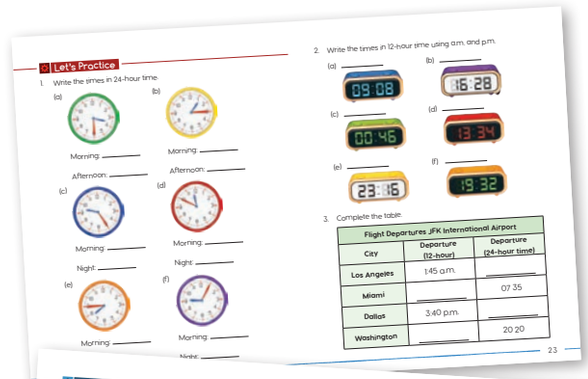
Let's Learn

Concepts are presented in a clear and colorful manner. Worked problems provide learners with guided step-by-step progression through examples. Series mascots provide guidance through helpful comments and observations when new concepts are introduced.



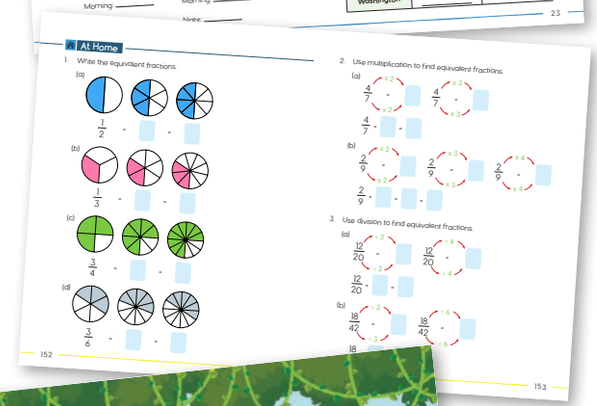
Let's Practice

Learners demonstrate their understanding of concepts through a range of exercises and problems to be completed in a classroom environment. Questions provide a varying degree of guidance and scaffolding as learners progress to mastery of the concepts.



At Home

Further practice designed to be completed without the guidance of a teacher. Exercises and problems in this section follow on from those completed under Let's Practice.

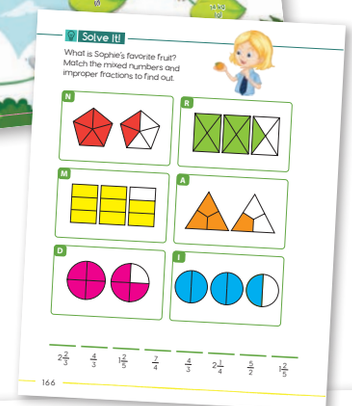


Hands On

Learners are encouraged to 'learn by doing' through the use of group activities and the use of mathematical manipulatives.

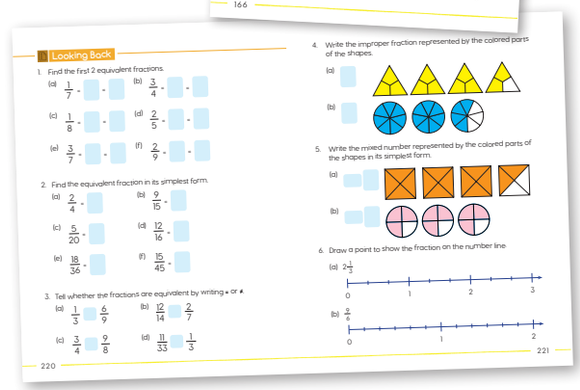
Solve It!

Activities that require learners to apply logical reasoning and problem-solving. Problems are often posed which do not have a routine strategy for solving them. Learners are encouraged to think creatively and apply a range of problem-solving heuristics.



Looking Back

Consolidated practice where learners demonstrate their understanding on a range of concepts taught within a unit.



Contents

1 Whole Numbers

Anchor Task

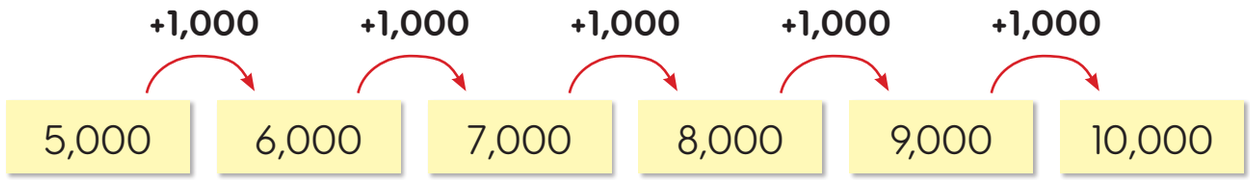
City	Population


CANADA
Lake of the Woods
Red Lake
Lake Superior
Minnesota
Wisconsin
Michigan
Lake Michigan
Lake Huron
Saint Lawrence R.
Maine
Augusta
Montpelier
New Hamp-shire
Vermont
Concord
L. Champlain
Lake Ontario
Albany
Boston
Massachusetts
Providence
Rhode Island
Hartford
Connec-ticut
New York
Buffalo
Minneapolis
Saint Paul
Miss. R.
Lansing
Detroit
L. St. Clair
Lake Erie
Pennsylvania
New York City
Newark
Trenton
Philadelphia
New Jersey
Harrisburg
Pittsburgh
Madison
Milwaukee
Chicago
Toledo
Cleveland
Iowa
Fort Wayne
Ohio
Indiana
Columbus
Baltimore
Dover
Delaware
Annapolis
WASHINGTON D. C.
Maryland
Omaha
Des Moines
Missouri R.
Illinois
Indianapolis
Ohio R.
West Virginia
Lincoln
Springfield
Cincinnati
Richmond
Charleston
Topeka
Kansas City
Louisville
Frankfort
Lexington
Virginia
Virginia Beach
Jefferson City
St. Louis
Ohio R.
Kentucky
ATLANTIC
Cumberland
Winston-Salem
Greensboro
Raleigh
Wichita
Missouri
Nashville
North Carolina
Charlotte
Tennessee
White R.
Tulsa
Oklahoma City
Arkansas
Memphis
Arkansas R.
Tennessee R.
Columbia
South Carolina
Little Rock
Atlanta
Oklahoma
Georgia
Mississippi
Mississippi R.
Fort Worth
Dallas
Arlington
Red River
Montgomery
Alabama
Jackson
Jacksonville
Tallahassee
Brazos R.
Baton Rouge
L. Pontchartrain
Florida
Austin
Houston
Louisiana
New Orleans
Orlando
Tampa
Saint Petersburg
Lake Okeechobee
THE BAHAMAS
Miami
Nassau
Corpus Christi
Gulf of Mexico
OCEAN
CUBA

Numbers to 1,000,000

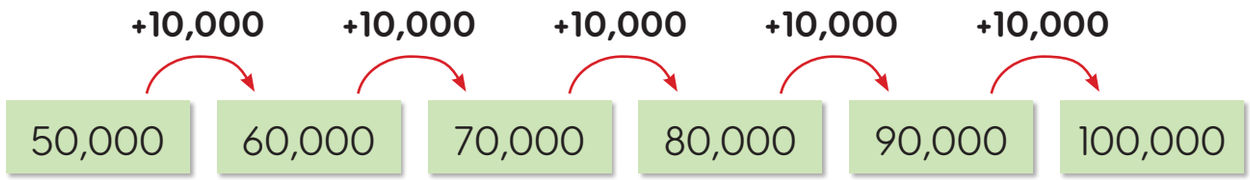
Let's Learn

Count on in thousands from 5,000.



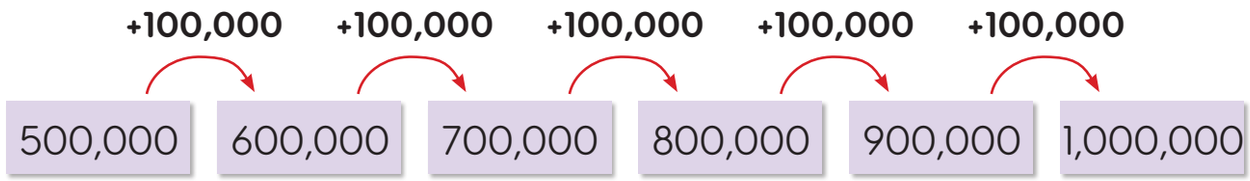
1,000 more than 9,000 is 10,000.
We read 10,000 as **ten thousand**.

Count on in ten thousands from 50,000.



10,000 more than 90,000 is 100,000.
We read 100,000 as **one hundred thousand**.

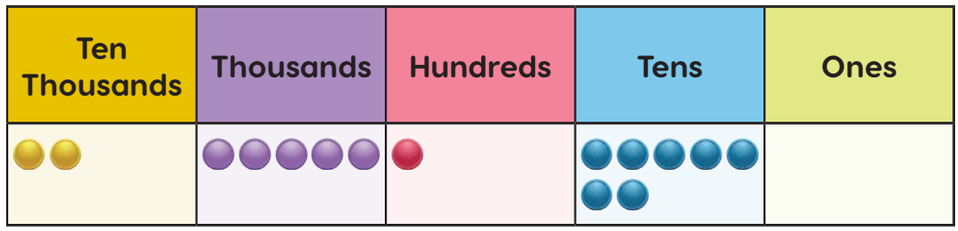
Count on in one hundred thousands from 500,000.



100,000 more than 900,000 is 1,000,000.
We read 1,000,000 as **one million**.

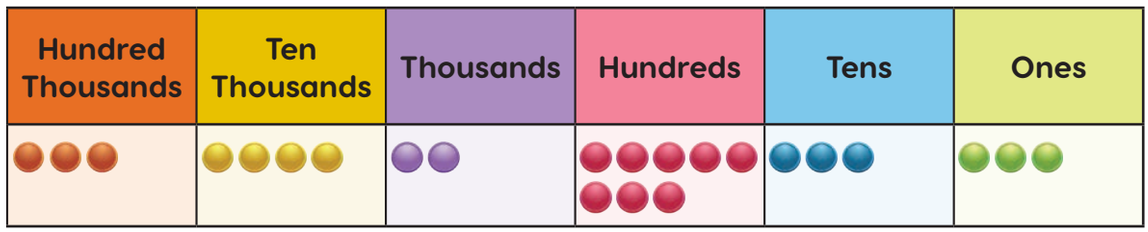
Find the number represented in the place value chart.

(a)



We say: Twenty-five thousand, one hundred seventy.
We write: 25,170.

(b)

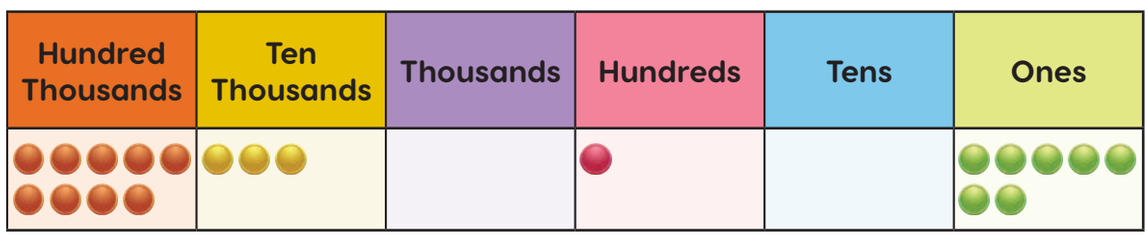


We say: Three hundred forty-two thousand, eight hundred thirty-three.
We write: 342,833.

(c)

We say: Five hundred one thousand, sixty-two.
We write: 501,062.

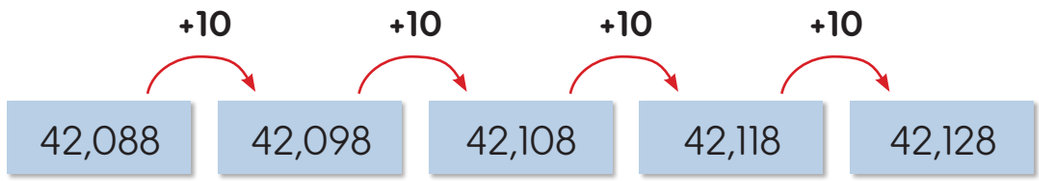
(d)



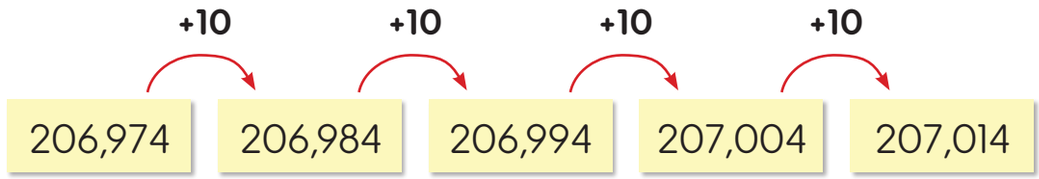
We say: Nine hundred thirty thousand, one hundred seven.
We write: 930,107.

Count on in tens.

(a)

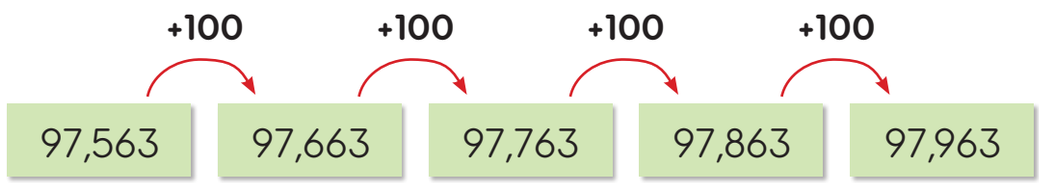


(b)



Count on in hundreds.

(a)



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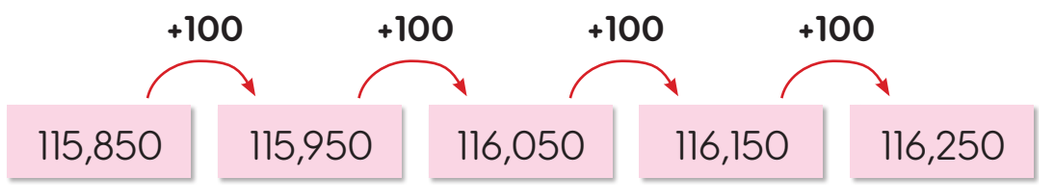
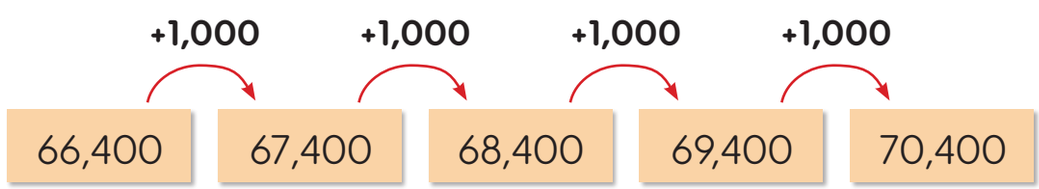


Count on in thousands.

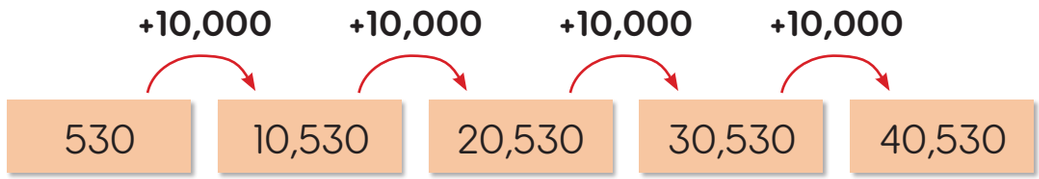
(a)



(b)

Count on in ten thousands.

(a)



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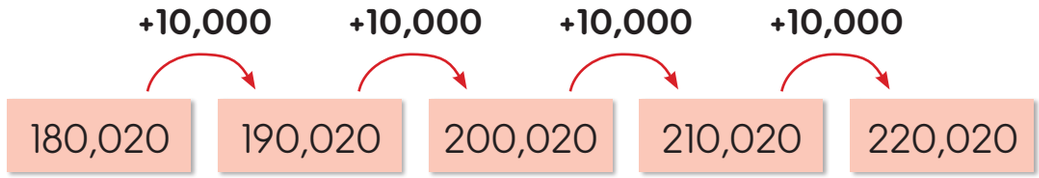
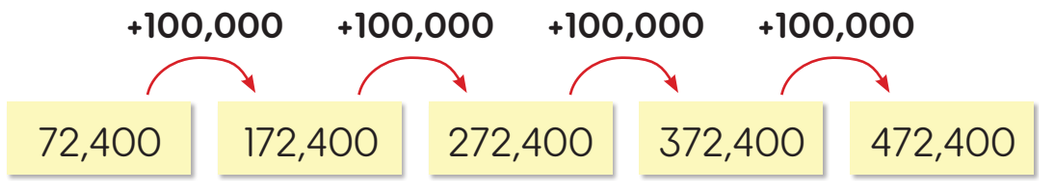
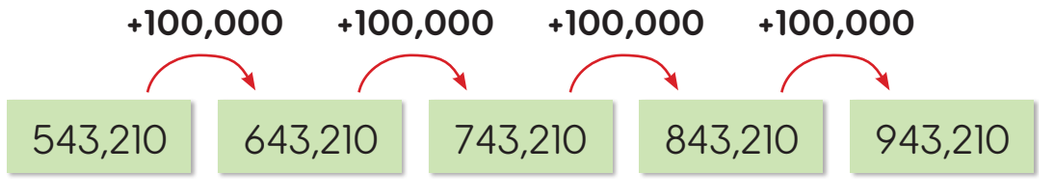


Count on in hundred thousands.

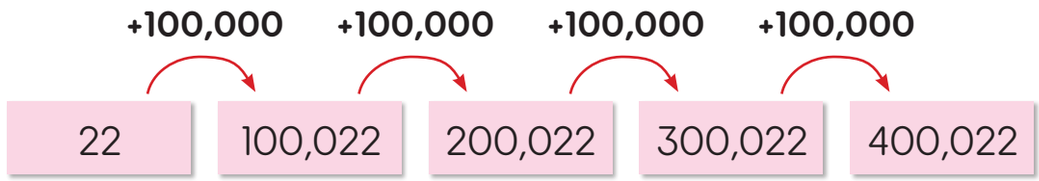
(a)



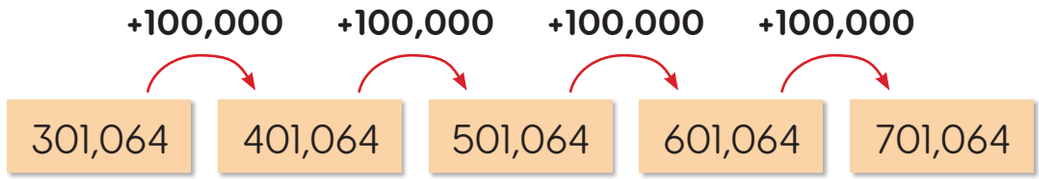
(b)



(c)



(d)



Let's Practice

1. Write as numerals and words.

(a)

Ten Thousands	Thousands	Hundreds	Tens	Ones
5	9	2	1	7

_____ _____

(b)

Ten Thousands	Thousands	Hundreds	Tens	Ones
9	4	0	7	0

_____ _____

(c)

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
5	3	2	0	8	6

_____ _____

(d)

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
8	5	2	6	8	0

_____ _____

2. Write the numbers.

(a) Ten thousand, five hundred six.

_____

(b) Seventeen thousand, six hundred ninety.

_____

(c) Four hundred six thousand, seven hundred nine.

_____

(d) Seven hundred twelve thousand, one hundred eighteen.

_____

(e) Thirteen thousand, four hundred forty-nine.

_____

(f) One hundred six thousand, two hundred eighty-one.

_____

3. Write in words.

(a) 16,933

_____

(b) 104,338

_____

(c) 490,002

_____

(d) 711,652

_____

4. Count on in 100s.

(a) 1,860, _____ , _____ , _____ , _____

(b) 368, _____ , _____ , _____ , _____

(c) 34,705, _____ , _____ , _____ , _____

(d) 9,820, _____ , _____ , _____ , _____

5. Count on in 1,000s.

(a) 51,200, _____ , _____ , _____ , _____

(b) 16,152, _____ , _____ , _____ , _____

(c) 7,251, _____ , _____ , _____ , _____

(d) 167,680, _____ , _____ , _____ , _____

6. Count on in 10,000s.

(a) 270, _____ , _____ , _____ , _____

(b) 93,150, _____ , _____ , _____ , _____

(c) 87,000, _____ , _____ , _____ , _____

(d) 331,705, _____ , _____ , _____ , _____

7. Count on in 100,000s.

(a) 1,899, _____ , _____ , _____ , _____

(b) 153,151, _____ , _____ , _____ , _____

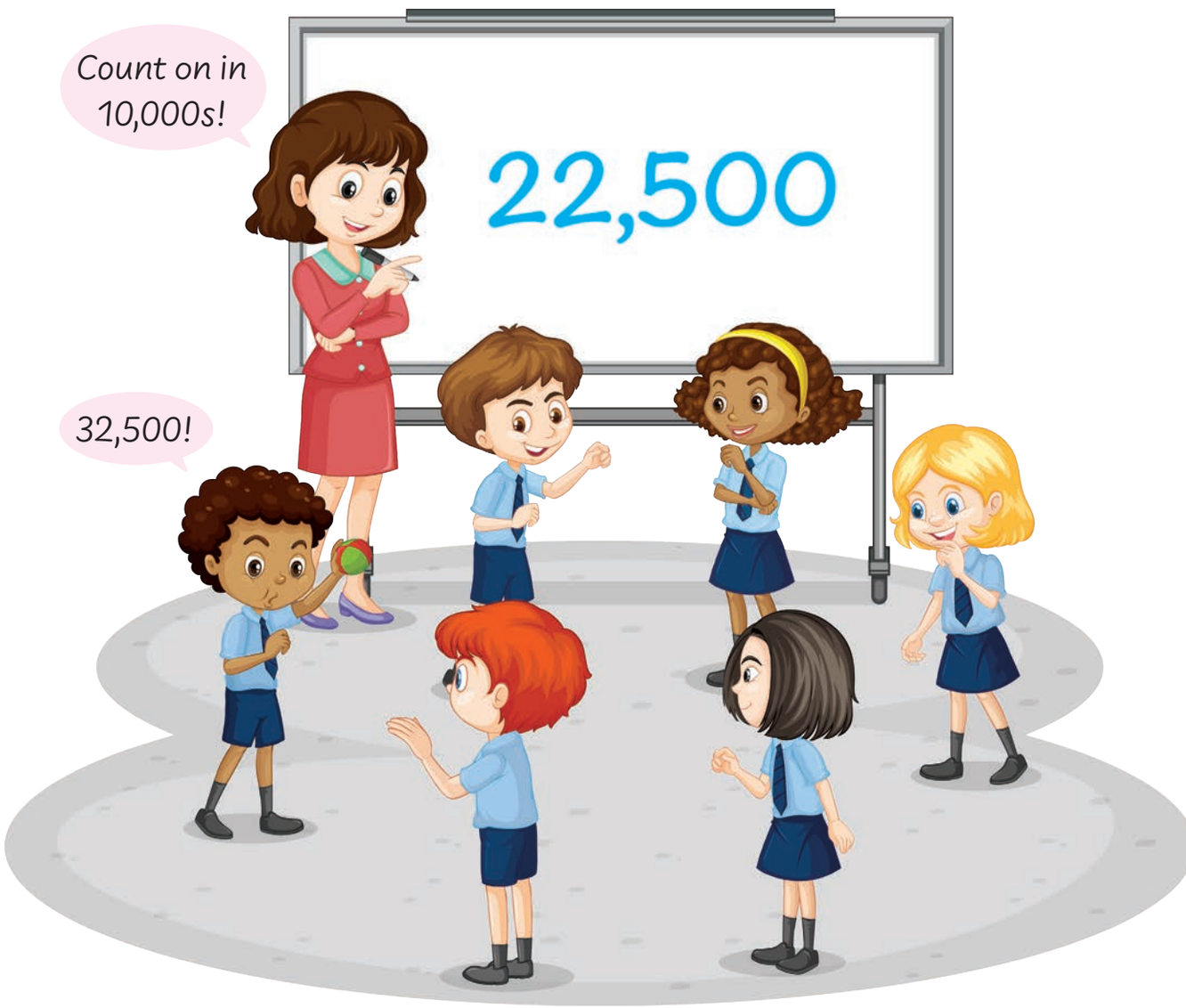
(c) 360, _____ , _____ , _____ , _____

(d) 600,000, _____ , _____ , _____ , _____

Hands On

Form circles of 4 to 6 students.
Each group receives a bean bag or ball.
Your teacher will write a number on the whiteboard and say a count-on number.

The student with the bean bag counts on from the number on the whiteboard and throws the bean bag to the next person in the group. Continue passing the bean bag and counting on until the teacher says 'Stop!'



At Home

1. Match.

six hundred eighty thousand, twenty-seven

68,020

sixty-eight thousand, two hundred seventy

6,827

six hundred eight thousand, two hundred seven

680,027

sixty-eight thousand, twenty

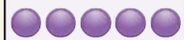
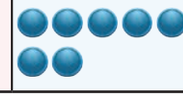
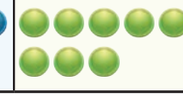
608,207

six thousand, eight hundred twenty seven

68,270

2. Write as numerals and words.

(a)

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
					

_____ _____

(b)

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
					

_____ _____

3. Count on in 10,000s.

(a) 85,010, _____ , _____ , _____ , _____

(b) 107,290, _____ , _____ , _____ , _____

(c) 9,600, _____ , _____ , _____ , _____

(d) 272,000, _____ , _____ , _____ , _____

4. Count on in 100,000s.

(a) 11,100, _____ , _____ , _____ , _____

(b) 480,350, _____ , _____ , _____ , _____

(c) 400, _____ , _____ , _____ , _____

(d) 599,500, _____ , _____ , _____ , _____

Place Value

Let's Learn

Find the value of each digit in the numbers shown.

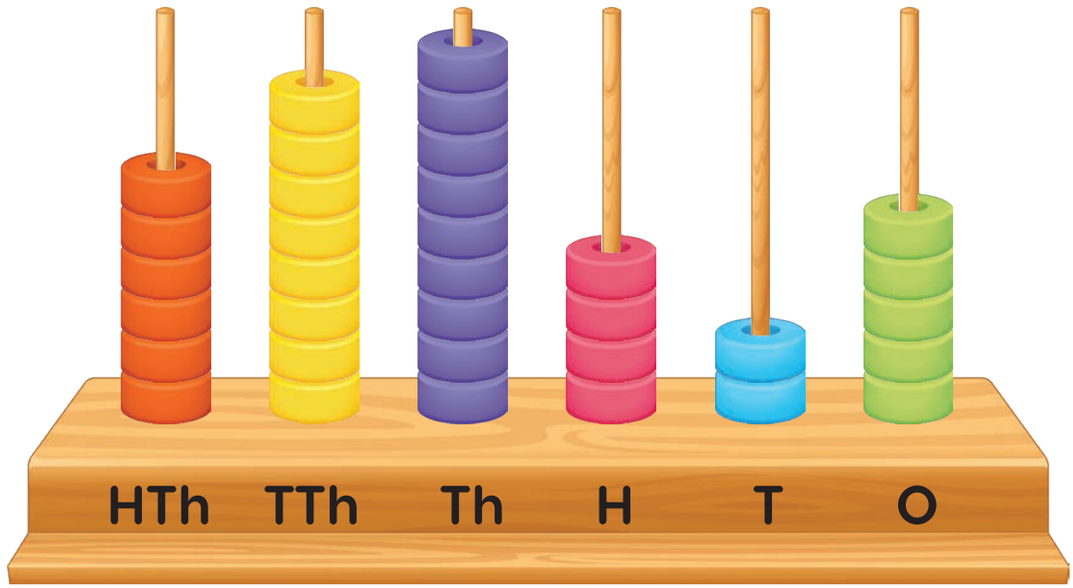
(a)

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
					

The digit in the hundred thousands place is 2.
It represents 200,000.
The digit in the ten thousands place is 5. It represents 50,000.
The digit in the thousands place is 1. It represents 1,000.
The digit in the hundreds place is 6. It represents 600.
The digit in the tens place is 9. It represents 90.
The digit in the ones place is 3. It represents 3.

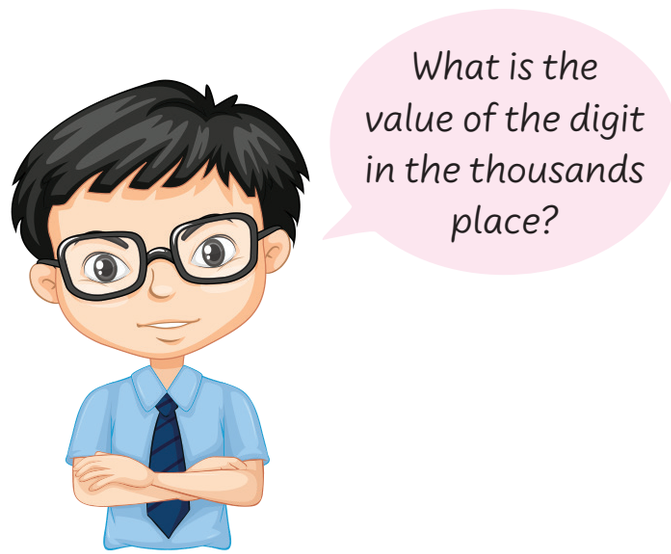
200,000 + 50,000 + 1,000 + 600 + 90 + 3 = 251,693

(b)



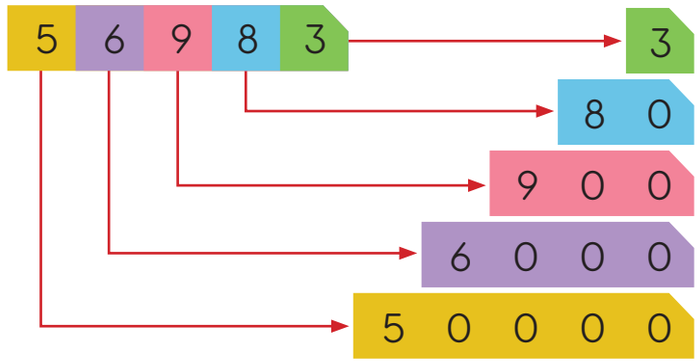
The digit in the hundred thousands place is 6.
It represents 600,000.
The digit in the ten thousands place is 8. It represents 80,000.
The digit in the thousands place is 9. It represents 9,000.
The digit in the hundreds place is 4. It represents 400.
The digit in the tens place is 2. It represents 20.
The digit in the ones place is 5. It represents 5.

600,000 + 80,000 + 9,000 + 400 + 20 + 5 = 689,425



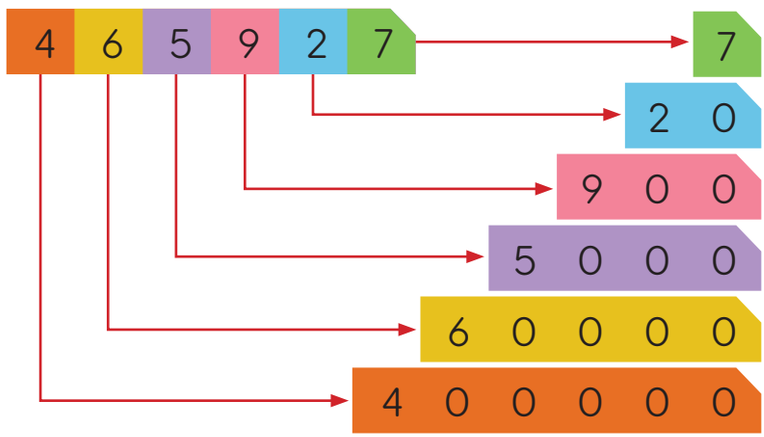
Let's find the value of each digit in the number.

(a)



The value of the digit 5 is 50,000.
The value of the digit 6 is 6,000.
The value of the digit 9 is 900.
The value of the digit 8 is 80.
The value of the digit 3 is 3.
50,000 + 6,000 + 900 + 80 + 3 = 56,983

(b)

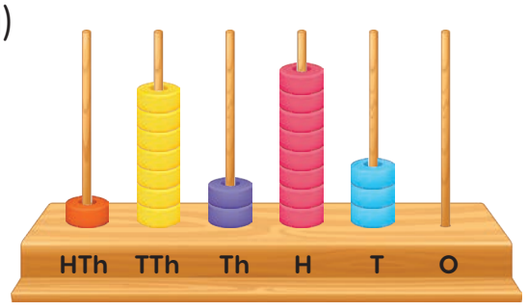


The value of the digit 4 is 400,000.
The value of the digit 6 is 60,000.
The value of the digit 5 is 5,000.
The value of the digit 9 is 900.
The value of the digit 2 is 20.
The value of the digit 7 is 7.
400,000 + 60,000 + 5,000 + 900 + 20 + 7 = 465,927

Let's Practice

1. Write the numbers shown in the place value abacus.

(a)



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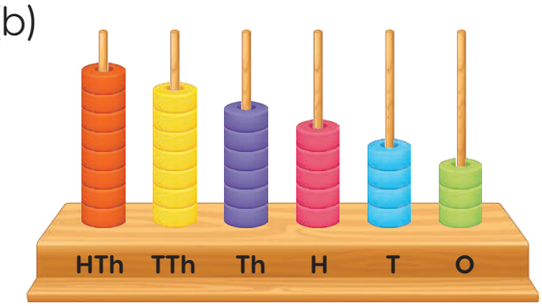
(b)



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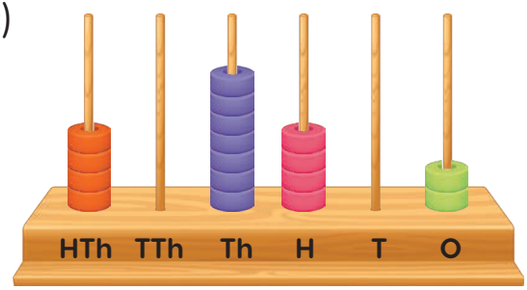
(c)



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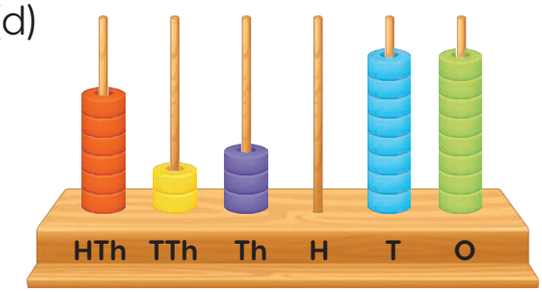
(d)



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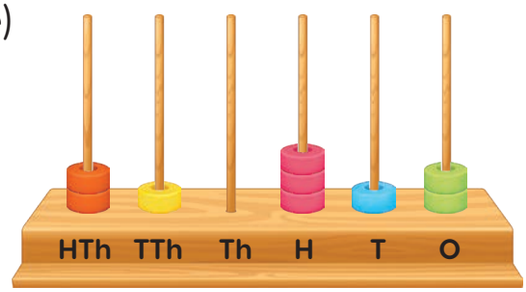
(e)



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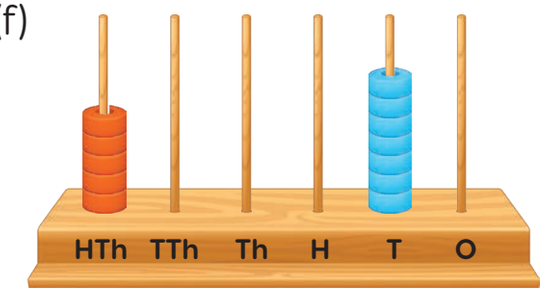
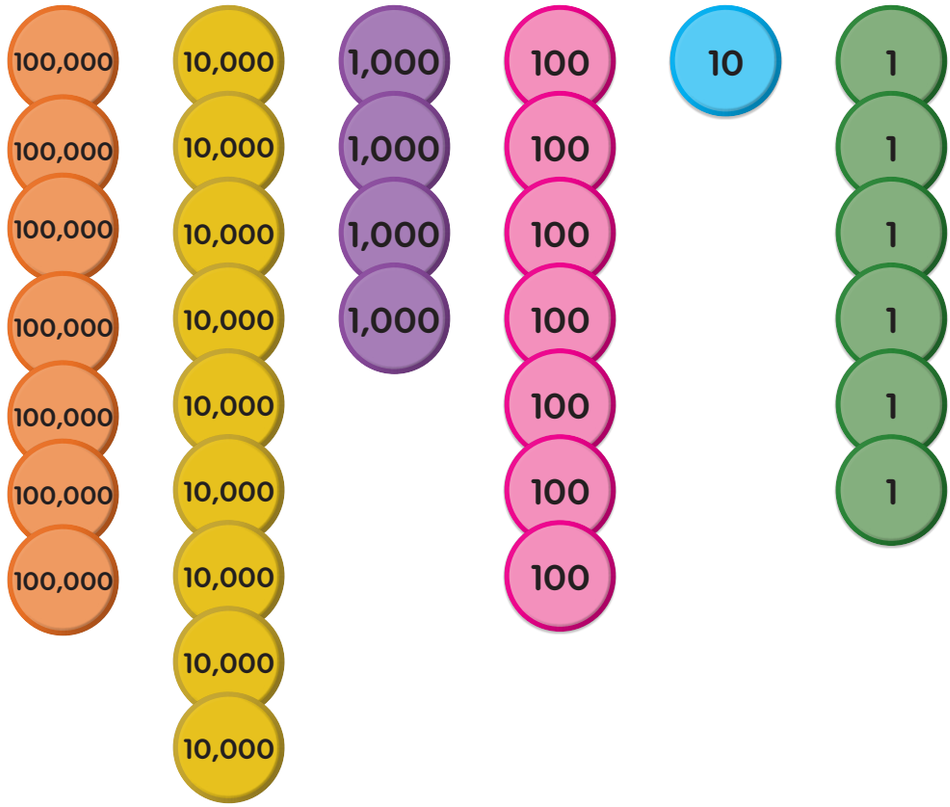
(f)



_____

2. Write the number represented by the place value disks.



_____

3. Write the value of the digit.

(a) 76,348

_____

(b) 124,856

_____

(c) 391,347

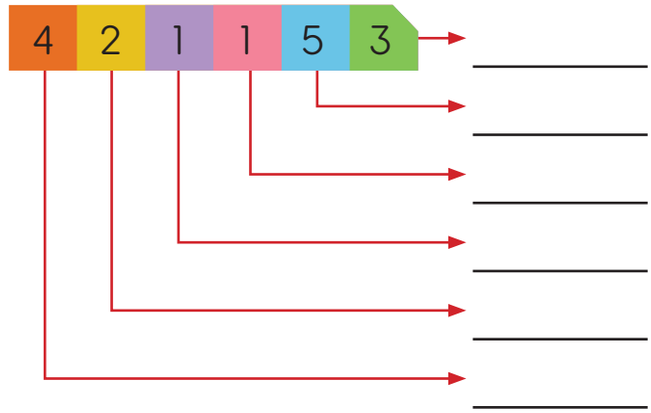
_____

(d) 870,213

_____

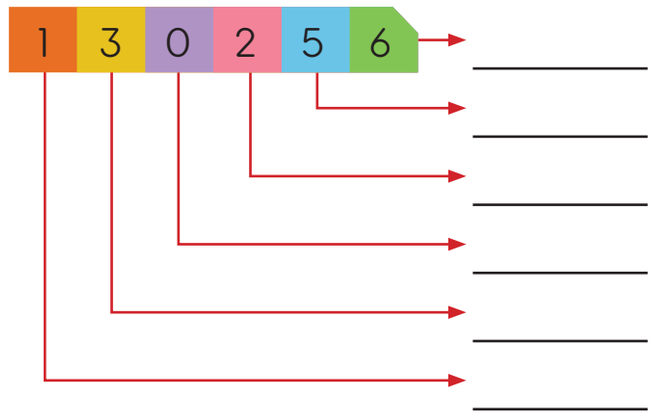
4. Write the value of each digit. Then add the values.

(a)



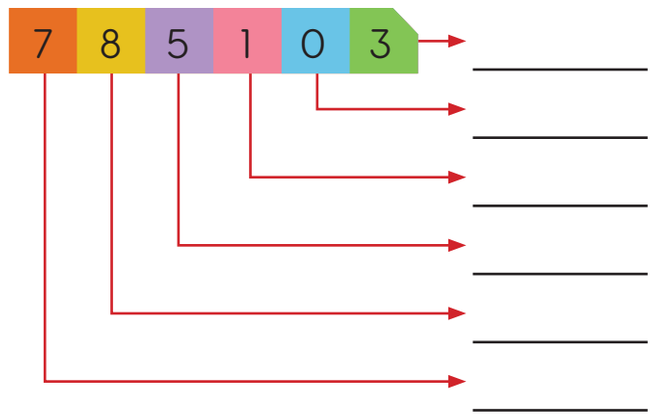
_____ + _____ + _____ + _____ + _____ + _____ = _____

(b)



_____ + _____ + _____ + _____ + _____ + _____ = _____

(c)



_____ + _____ + _____ + _____ + _____ + _____ = _____

Solve It!

Read the clues to find the combination to the safe!

- The code has 6 digits.
- The code is greater than 220,000 but less than 420,000.
- The code is an odd number that is not divisible by 5.
- The sum of the digits in the hundreds, tens and ones place is 10.
- The digit in the hundreds place is 4.
- All digits are less than 6 and no 2 digits are the same.

Safe combination ___ ___ ___ ___ ___ ___

At Home

1. Match the numbers in two ways.

258,602 •

25,620 •

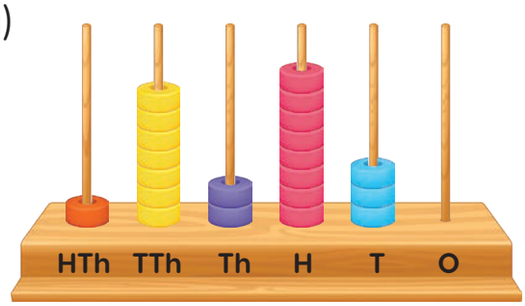
285,060 •

260,285 •

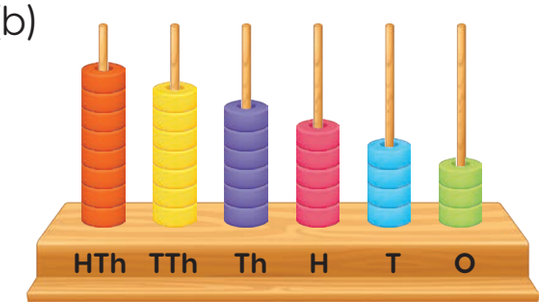
- two hundred eighty-five thousand, sixty
- 20,000 + 5,000 + 600 + 20
- twenty-five thousand, six hundred twenty
- 200,000 + 50,000 + 8,000 + 600 + 2
- two hundred sixty thousand, two-hundred eighty five
- two hundred fifty-eight thousand, six hundred two
- 200,000 + 60,000 + 200 + 80 + 5
- 200,000 + 80,000 + 5,000 + 60

2. Write the numbers shown in the place value abacus.

(a)



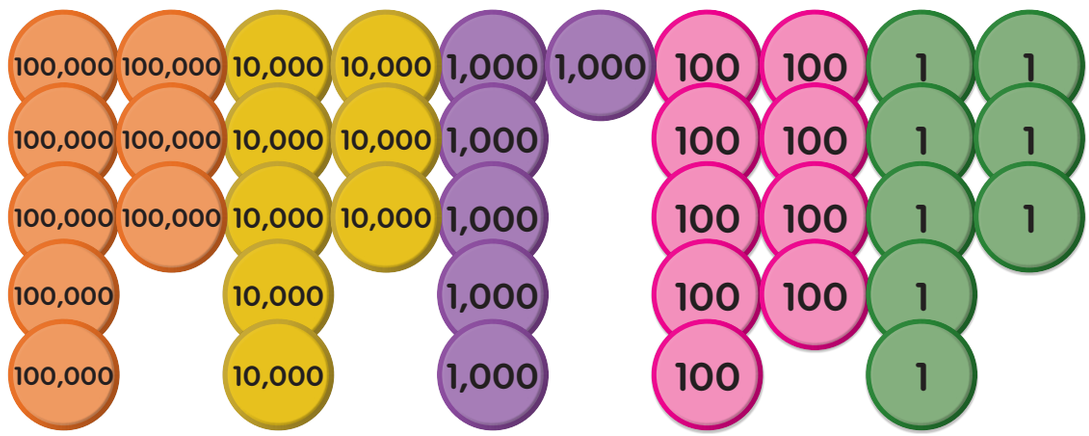
(b)



_____ _____

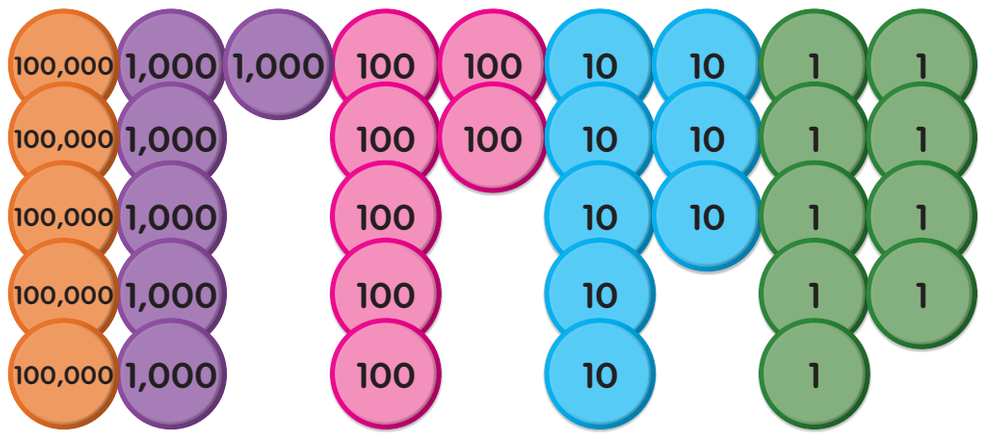
3. Write the numbers represented by the place value disks.

(a)



_____

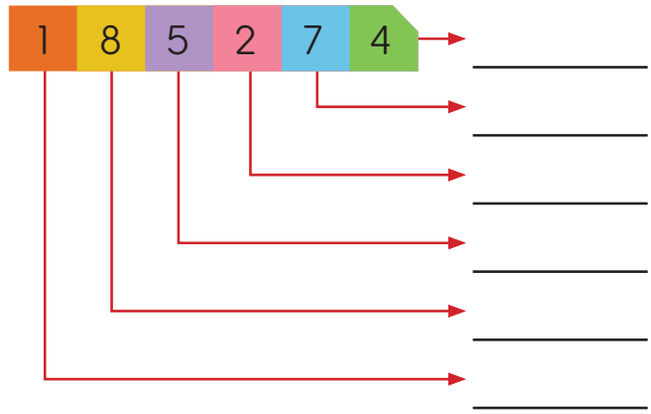
(b)



_____

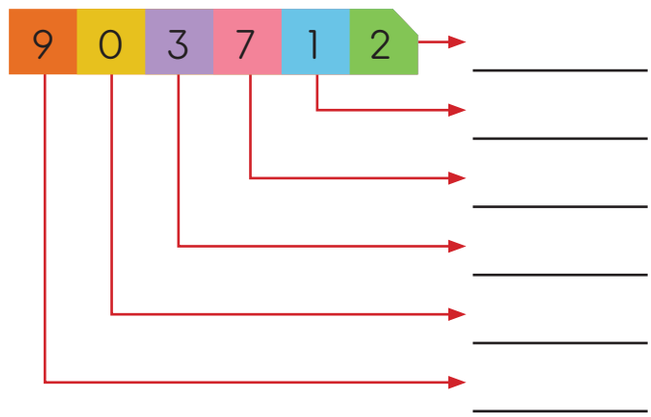
4. Write the value of each digit. Then add the values.

(a)



_____ + _____ + _____ + _____ + _____ + _____ = _____

(b)



_____ + _____ + _____ + _____ + _____ + _____ = _____

5. Add the place values.

(a) 400,000 + 10,000 + 600 + 80 + 2 = _____

(b) 200,000 + 20,000 + 2,000 = _____

(c) 100,000 + 50,000 + 5 = _____

(d) 300,000 + 2,000 + 800 = _____

(e) 700,000 + 7,000 + 70 = _____

(f) 600,000 + 90,000 + 10 + 6 = _____

Comparing and Ordering Numbers

Let's Learn

Let's compare the numbers.

(a) Compare the numbers 352,189 and 351,667.
Which number is greater?

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
3	5	2	1	8	9
3	5	1	6	6	7

First, compare the values in the hundred thousands place.
The values in the hundred thousands place are the same.
Compare the values in the next place – ten thousands.
The values in the ten thousands place are the same.
Compare the values in the thousands place.
2 thousands is greater than 1 thousand.

So, 352,189 is greater than 351,667.

(b) Compare the numbers 522,165 and 522,775.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
5	2	2	1	6	5
5	2	2	7	7	5

The values in the hundred thousands, ten thousands and thousands place are the same. Compare the values in the hundreds place. 1 hundred is smaller than 7 hundreds.

522,165 < 522,775 522,775 > 522,165

(c) Compare the numbers in the place value chart.
Order the numbers from the greatest to the smallest.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
2	4	5	8	3	1
—	8	5	5	8	0
2	5	6	0	2	7

First, compare the values in the hundred thousands place.
85,580 does not have any digits in the hundred thousands place. So, it is the smallest number.
The remaining numbers both have 2 hundred thousands.
Compare the values in the ten thousands place.
5 ten thousands is greater than 4 ten thousands.
So, it is the greatest number.

256,027 245,831 85,580

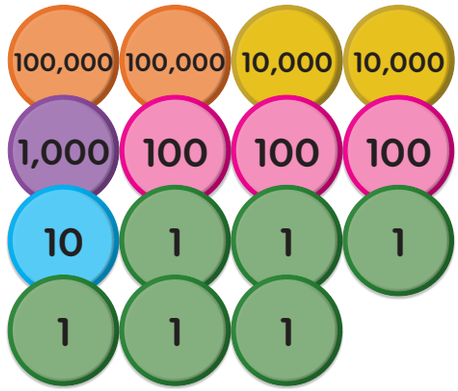
greatest → **smallest**

Always start by comparing the digits in the highest place value.

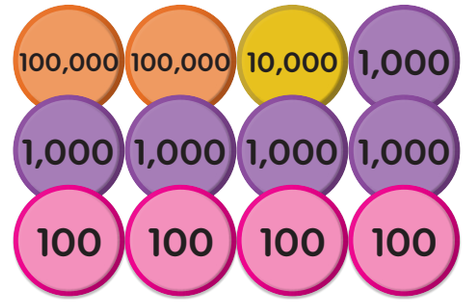
Let's Practice

1. Write the number represented by the place value disks. Check the smaller number.

(a)

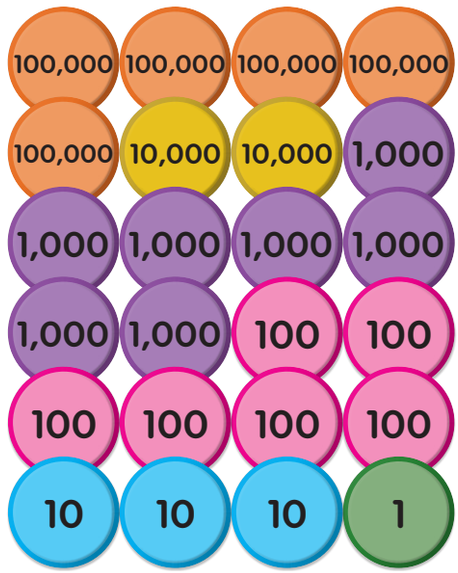


_____ ☐

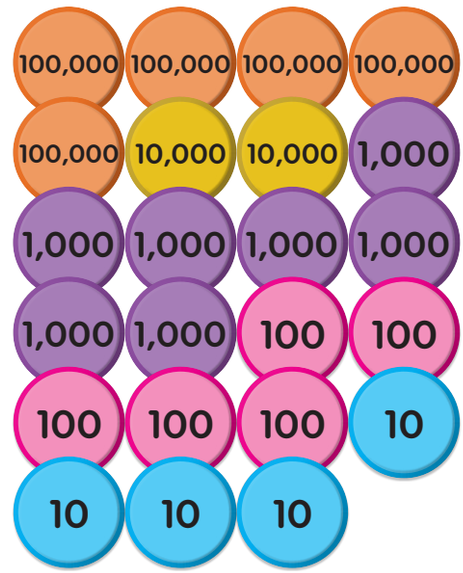


_____ ☐

(b)



_____ ☐



_____ ☐

2. Write the numbers in the place value chart and compare.

(a) Compare 704,561 and 703,761.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

_____ > _____

(b) Compare 185,119 and 185,102.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

_____ < _____

3. Use the symbols >, < and = to fill in the blanks.

(a) 11,055 _____ 11,505

(b) 135,509 _____ 135,509

(c) 80,215 _____ 80,219

(d) 959,934 _____ 959,349

(e) 746,450 _____ 746,399

(f) 478,012 _____ 478,120

(g) 347,822 _____ 743,822

(h) 870,338 _____ 870,338

4. Check the smaller number.

(a) ☐ 12,993 ☐ 16,033

(b) ☐ 512,533 ☐ 510,838

(c) ☐ 770,809 ☐ 770,688

5. Check the greatest number.

(a) ☐ 31,533 ☐ 7,543 ☐ 4,573

(b) ☐ 192,606 ☐ 193,000 ☐ 192,506

(c) ☐ 742,167 ☐ 742,176 ☐ 742,168

6. Arrange the numbers from the greatest to the smallest.

(a) 109,558 105,558 110,598,

_____ , _____ , _____

(b) 753,186 119,060 401,306

_____ , _____ , _____

(c) 145,558 93,002 930,001

_____ , _____ , _____

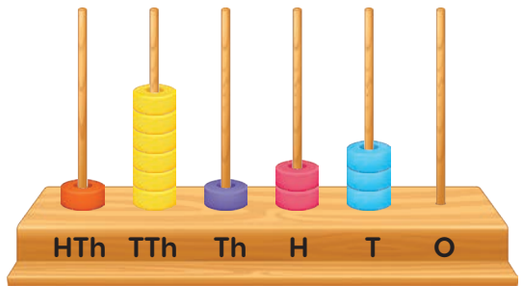
(d) 29,158 19,414 9,455

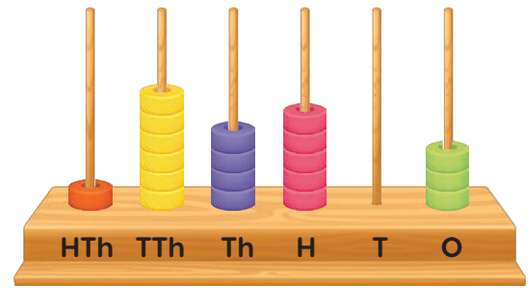
_____ , _____ , _____

At Home

1. Write the number represented by the place value disks. Check the greater number.

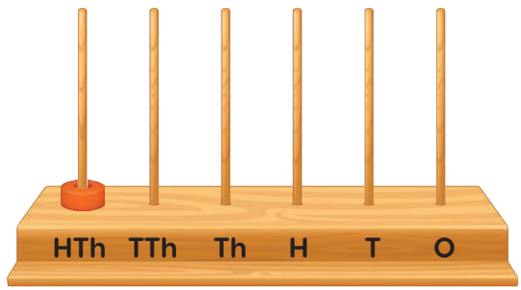
(a)

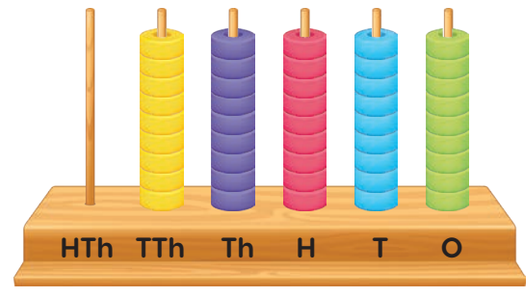




_____ _____

(b)





_____ _____

2. Compare 104,070 and 104,101.

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

_____ > _____

3. Check the numbers greater than 234,567.

☐ 35,675	☐ 234,560	☐ 243,650
☐ 335,707	☐ 48,589	☐ 500,367
☐ 234,558	☐ 243,006	☐ 234,580

4. Use the words **is greater than**, **is smaller than** and **is equal to** to fill in the blanks.

(a) 103,520 _____ 103,920

(b) 18,544 _____ 18,655

(c) 202,113 _____ 202,113

(d) 999,478 _____ 999,666

(e) 234,980 _____ 234,980

(f) 567,010 _____ 576,010

5. Arrange the numbers from the greatest to the smallest.

(a) 6,488 65,489 64,000

_____ , _____ , _____

(b) 18,227 80,228 8,048

_____ , _____ , _____

(c) 405,503 412,504 420,501

_____ , _____ , _____

(d) 698,123 698,114 697,199

_____ , _____ , _____