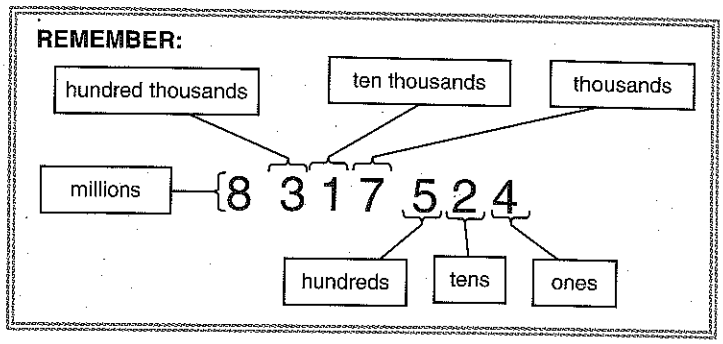
NS6-1: Introduction to Place Value

1. Write the place value of the underlined digit.



a) 56 2<u>3</u>6 — tens

b) <u>1</u> 956 336

c) 8 <u>2</u>56 601

d) 6 453 <u>1</u>56

e) 7 103 25<u>6</u>

f) 2 5<u>8</u>9 143

g) 92<u>3</u> 156

2. Give the place value of the number 5 in each of the numbers below.
HINT: First underline the 5 in each question.

a) 35 689

b) 5 308 603

c) 36 905

d) 215

e) 2 542

f) 3 451 628

g) 43 251

h) 152 776

i) 1 543 001

3. You can also write numbers using a place value chart.

Example:

4 672 953 would be:

millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
4	6	7	2	9	5	3

Write the following numbers into the place value chart.

	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
a) 2 316 953	2	3	1	6	9	5	3
b) 62 507							
c) 5 604 891							
d) 1 399							
e) 17							
f) 998 260							

NS6-2: Place Value

The number 684 523 is a **6-digit number**.

- The **digit** 6 stands for 600 000 – the **value** of the digit 6 is 600 000
- The **digit** 8 stands for 80 000 – the **value** of the digit 8 is 80 000
- The **digit** 4 stands for 4 000 – the **value** of the digit 4 is 4 000
- The **digit** 5 stands for 500 – the **value** of the digit 5 is 500
- The **digit** 2 stands for 20 – the **value** of the digit 2 is 20
- The **digit** 3 stands for 3 – the **value** of the digit 3 is 3

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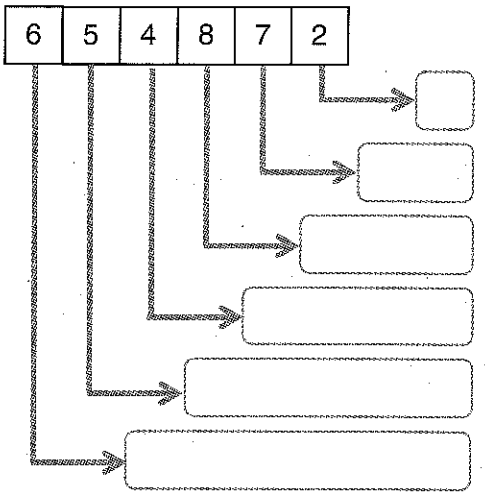
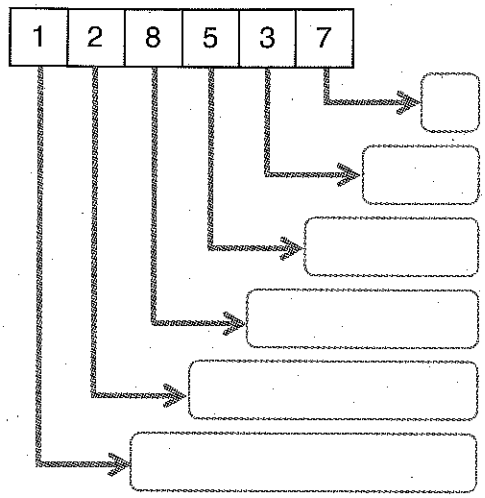
1. Write the **value** of each digit.

a)



b)



2. What does the digit 7 stand for in each number? The first one is done for you.

a) 8 476 — 70

b) 38 725

c) 93 726

d) 730 025

e) 7 250

f) 64 297

g) 43 075

h) 382 457

3. Fill in the blanks.

a) In the number 4 523, the digit 5 stands for _____ .

b) In the number 34 528, the digit 3 stands for _____ .

c) In the number 420 583, the value of the digit 8 is _____ .

d) In the number 75 320, the value of the digit 7 is _____ .

e) In the number 723 594, the digit _____ is in the ten thousands place.

NS6-3: Reading and Writing Large Numbers

1. Say whether the underlined numbers represent **thousands** or **millions.**

   a) 327 510 210 — millions

   b) 216 772 015 — _____

   c) 879 054 815 — _____

   d) 65 321 879 — _____

Correct spelling for the tens place:

ten	sixty
twenty	seventy
thirty	eighty
forty	ninety
fifty	

2. Write the value of the underlined digits.

   a) 375 231 872 — three hundred seventy-five million

   b) 287 036 253 — _____

   c) 79 253 812 — _____

   d) 3 770 823 — _____

3. Write numerals for the numbers.

   a) Two hundred eighty-three million, four hundred twenty-two thousand

   b) Seventy-three million, fifty-seven thousand, one hundred four

   c) Nine hundred seven million, four hundred three thousand, twenty-one

4. Write number words for the numerals.

   a) 275 381 210

   b) 89 023 100

   c) 998 325 593

5. Write the numbers in the chart in words. (Note: **mya** means millions of years ago.)

Dinosaurs evolve		Birds evolve		Dinosaurs become extinct
Triassic Period		Jurassic Period		Cretaceous Period
248 mya	206 mya		214 mya	65 mya

6. Complete each sentence with a written number in the hundred thousands or the hundred millions.

   a) A small city can have a population of…

   b) A large country can have a population of…

7. Write the numerals in the chart in words.

Planet	Distance from Sun (km)
Mercury	57 600 000
Venus	107 520 000
Earth	148 640 000

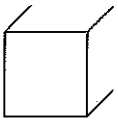
8. **Billions** come after millions.
   The planet Neptune is 4 468 640 000 km from the sun. Write this number in words.

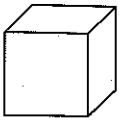
9. Explain how our place value system makes it easy to read and write large numbers.

NS6-4: Representation with Base Ten Materials (continued)

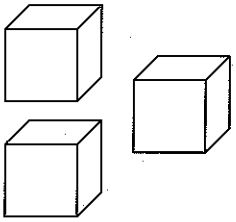
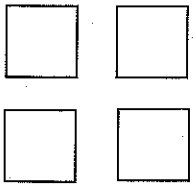
Steps for drawing a thousands block:

Step 1: Draw a square: 

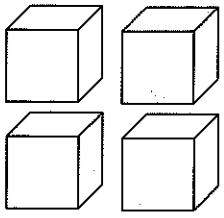
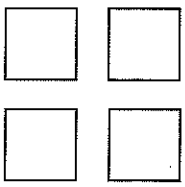
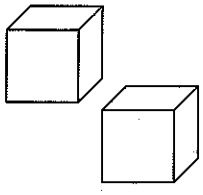
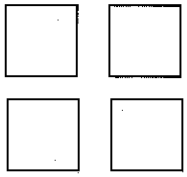
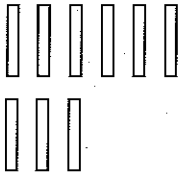
Step 2: Draw lines from its 3 vertices: 

Step 3: Join the lines: 

2. Represent the given numbers with the base ten blocks in the place value chart. The first one has been started for you.

	Number	Thousands	Hundreds	Tens	Ones
a)	3 468				
b)	1 542				
c)	2 609				

3. Write the numbers for the given base ten blocks.

	Thousands	Hundreds	Tens	Ones	Number
a)					_____
b)					_____

NS6-5: Representation in Expanded Form

1. Expand the following numbers using numerals and words. The first one is done for you.

   a) 2 536 784 = 2 millions + 5 hundred thousands + 3 ten thousands + 6 thousands + 7 hundreds + 8 tens + 4 ones

   b) 6 235 401 = _____

   _____

   c) 3 056 206 = _____

   _____

2. Write the number in expanded form (using numerals). The first one is done for you.

   a) 72 613 = 70 000 + 2 000 + 600 + 10 + 3

   b) 36 = _____

   c) 526 = _____

   d) 12 052 = _____

   e) 2 382 = _____

   f) 56 384 = _____

   g) 3 082 385 = _____

3. Write the number for each sum.

   a) 6 000 + 700 + 40 + 7 = _____

   b) 800 + 60 + 8 = _____

   c) 3 000 + 30 + 2 = _____

   d) 50 000 + 6 000 + 400 + 90 + 3 = _____

   e) 10 000 + 6 000 + 200 + 30 + 4 = _____

   f) 30 000 + 2 000 + 500 = _____

   g) 90 000 + 3 000 + 600 + 7 = _____

BONUS

   h) 300 000 + 2 000 000 + 5 + 70 000 + 200 = _____

4. Find the missing numbers.

   a) 2 000 + 600 + _____ + 5 = 2 645

   b) 4 000 + 200 + _____ + 5 = 4 285

   c) 40 000 + 3 000 + _____ + 10 + 5 = 43 715

   d) 80 000 + 5 000 + _____ + 60 + 3 = 85 263

   e) 20 000 + 6 000 + 300 + _____ = 26 302

   f) _____ + 400 = 9 400

   g) 6 000 + _____ = 6 080

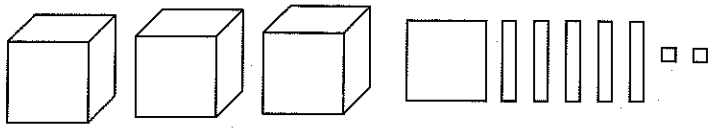
   h) 80 000 + _____ + _____ = 87 005

   i) 300 000 + 90 000 + _____ + _____ = 390 702

NS6-5: Representation in Expanded Form (continued)

5. Write each number in expanded form. Then draw a base ten model.

Example: 3 152 = 3 000 + 100 + 50 + 2

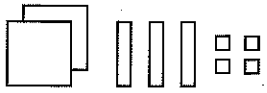


a) 4 354 = _____

b) 2 604 = _____

6. Represent the number 8 564 in four different ways – by sketching a base ten model, with number words, and in expanded form (2 ways).

Example: 234 – Two hundred thirty-four



234 = 2 hundreds + 3 tens + 4 ones expanded form (using number words)

234 = 200 + 30 + 4 expanded form (using numerals)

7. In the number 38 562, what is the sum of the tens digit and the thousands digit?

8. How many two-digit numbers have digits that add to twelve?

9. Using 5 blocks make (or draw) a model of a number such that...

- The number is odd
- There are twice as many thousands blocks as hundreds blocks

10. How many thousands blocks would you need to represent a million?