

Lesson 1

Introduction to Place Value

It is important to understand place value in order to gain a firm grasp of whole number and decimal concepts. Read this Place Value Chart below with your parent as your parent points out each specific place value present. The chart shows the place value of the number 128,500.

HUNDRED Thousands	TEN Thousands	Thousands	Hundreds	Tens	Ones
1	2	8	5	0	0
$1 \times 100,000$	$2 \times 10,000$	$8 \times 1,000$	5×100	0×10	0×1
100,000	20,000	8,000	500	0	0

Each digit in the number 128,500 has a specific place value noted in the chart above. The 1 in the number is in the hundred thousands place; the 2 in the number is in the ten thousands place; the 8 in the number is in the thousands place; the 5 in the number is in the hundreds place; the first 0 is in the tens place; the next 0 is in the ones place.

Work through these examples with your parent to determine the place value of the bold digit for each problem.

1. **14,832**

2. **567**

3. **134,820**

4. **23,020**

5. **650,200**

To write a number in expanded form, use each digit, multiplied by the place value of the digit, and add each of these products together.

Example: Write 14,600 in expanded form

$$1 \times 10,000 + 4 \times 1,000 + 6 \times 100 + 0 \times 10 + 0 \times 1$$

$$10,000 + 4,000 + 600 + 0 + 0$$

Example: Write 235,781 in expanded form

Write 45 in expanded form

To write a number using word form, simply write the words represented by the place value of each number, separated by commas.

Example: Write 481 in word form

Example: Write 12,300 in word form

Example: Write 132,450 in word form

Lesson 1 Worksheet

Part 1: Write the place value of the digit in bold text.

1. 32,223

2. 410,211

3. 90

4. 1,252

5. 146,240

6. 210

7. 635,890

8. 23,272

9. 41,006

10. 266,765

11. 443,103

12. 190

13. 94

14. 910,035

15. 888,576

16. 4,532

17. 6,742

18. 10,485

19. 87,321

20. 90,987

21. 245,038

22. 48,523

23. 19,098

24. 85,021

Part 2: Write each number in expanded form.

1. 8949

2. 64,529

3. 29

4. 675

5. 88

6. 67,808

7. 57

8. 67

9. 19

10. 73,370

11. 835

12. 3

Part 3: Write each number in word form.

1. 1,975

2. 254

3. 8,361

4. 3,643

5. 5,301

6. 5,730

7. 1,583

8. 6,116

9. 26

10. 507,090

11. 102

12. 8,120

13. 457,333

14. 8,544

15. 968,359

16. 114,387

Lesson 2

Understanding Millions and Billions

In lesson 1, we looked at the place value of numbers that were not any greater than a number in the hundred thousands. Now you will become familiar with numbers in the millions and billions. Look at the Place Value Chart below which has millions and billions added to it for the number 134,567,302,119.

Lesson 2 Place Value Chart

	Hundred Billions	Ten Billions	Billions	Hundred Millions	Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
	1	3	4	5	6	7	3	0	2	1	1	9
	$1 \times 100,000,000,000$	$3 \times 30,000,000,000$	$4 \times 1,000,000,000$	$5 \times 100,000,000$	$6 \times 10,000,000$	$7 \times 1,000,000$	$3 \times 100,000$	$0 \times 10,000$	$2 \times 1,000$	1×100	1×10	9×1
	100,000,000,000	90,000,000,000	4,000,000,000	500,000,000	60,000,000	7,000,000	300,000	00,000	2,000	100	10	9

The expanded form of the number 134,567,302,119 as we learned in the previous Lesson is:

$$100,000,000,000 + 30,000,000,000 + 4,000,000,000 + 500,000,000 + 60,000,000 + 7,000,000 + 300,000 + 2,000 + 100 + 10 + 9.$$

The word form of the number above as we learned in the previous lesson is: One hundred thirty-four billion, five hundred sixty-seven million, three hundred two thousand, one hundred nineteen.

Do the following with each Example:

Tell the place value of the bold digit.

Write the number in expanded form.

Write the number in word form.

Example: 2,254,380 _____

Example: 43,076,987,100 _____

Example: 88,330,210 _____

Lesson 2 Worksheet

Part 1: Write the place value of the bold digit.

1. 2,432,223

2. 901,410,211

3. 905,682,117,340

4. 1,252,380

5. 146,240,110

6. 210,549

7. 63,890,763,281

8. 623,272

9. 541,006

10. 266,765

11. 443,103

12. 190

13. 9,456,773

14. 910,035,815

15. 1,234,888,576

16. 364,532

17. 6,742,445,110

18. 10,485,563

19. 87,321,976

20. 1,190,987

21. 3,245,038,467

22. 48,523,130

23. 19,098,467,200

24. 5,021,190

Part 2: Write each number in expanded form.

25. 1,975,345

26. 2,566,788,344

27. 8,361,455,100

28. 343

29. 5,301,300

30. 530

31. 1,583

32. 6,116,220

33. 26,567

34. 507,090

35. 102,284,190

36. 820,657

37. 7,333

38. 544,677,899

39. 98,359

40. 114,387

Part 3: Write each number in word form.

41. 8,949,653

42. 64,529,902,134

43. 29,563

44. 675,420,100,300

45. 88,458

46. 6,865,132,189

47. 57,455,679,045

48. 67,520,100

49. 19,763,907

50. 7,345,120

51. 835,376

52. 3,984,975,900
