

1.2 Place Value

We use the digits (symbols) 0,1,2,3,4,5,6,7,8,9 to write numbers. The position of the digit determines its value. Below is a place value chart for whole numbers and decimals (part of a whole).

Billions			Millions			Thousands			Ones			•	Decimals					
hundred billions	ten billions	billions	hundred millions	ten millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones		tenths	hundredths	thousandths	ten thousandths	hundred thousandths	millionths

- 67,900,432 would be read as, sixty-seven million, nine hundred thousand, four hundred thirty-two
- 5,043,000,600.7 would be read as, five billion, forty-three million, six hundred and seven tenths
- 4,286.025 would be read as, four thousand, two hundred eighty-six and twenty-five thousandths

- The first comma denotes *thousand*; the second comma denotes *million*; the third comma denotes *billion*
- Read each number between the comma and add the appropriate word designation
- When reading a number, the word "and" is said in place of the decimal point



Write each number in words:

a. 4,801,083

b. 45,000,025,011

c. 56,008.02

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d. 216,080.425

e. 0.062



Why do you think we use commas?



Write the following numbers:

a. Ten thousand, four hundred twenty-five

b. Six million, eighty-four

c. Seventeen billion, three thousand, seven and thirty-five hundredths

d. Twenty-seven thousand and seven thousandths

e. One hundred four million, eight thousand, eight and eight hundredths

f. Twenty-four hundredths

Assignment 1.2

Name: _____

Write each number in words:

1. 41,020
2. 3,066.3
3. 4,800,050.027
4. 78,500,080,000
5. 0.34
6. 185.0004
7. 105,040,300.402

Write the following using numbers:

8. Thirty-five million, two hundred eighty thousand, fifty-five
9. One hundred sixty thousand and seventy-two hundredths
10. Twelve thousandths
11. Thirty-seven million, eight thousand and twenty-four thousandths
12. Three hundred three billion, eighty-five thousand, two

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13. Fifty-six thousand, eighty two and two tenths
14. Four million, four and four thousandths
15. Nine hundred one and four hundred two ten thousandths

The chart below shows the distances from the Sun to various planets. Use the information to answer questions 16 – 20.

Distance from the Sun in kilometers (km)

	Farthest	Nearest	Mean
Mercury	69,000,000	46,000,000	57,900,000
Venus	109,000,000	107,500,000	108,230,000
Earth	152,106,000	147,103,000	149,597,870
Mars	249,100,000	206,500,000	227,900,000
Jupiter	816,000,000	716,000,000	778,000,000
Saturn	1,503,000,000,000	1,351,000,000,000	1,427,000,000,000

16. Write Mercury's mean distance from the Sun in words.
17. Write Jupiter's nearest distance from the Sun in words.
18. Write Earth's farthest distance from the Sun in words.
19. Write Saturn's farthest distance from the Sun in words.
20. Write Venus' mean distance from the Sun in words.

Supplemental Exercises

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Section 1.2

Write each number in words:

1. 31,003
2. 8,000,045
3. 54,038,000,035
4. 4,001
5. 2,150,453,007
6. 6,035.01
7. 0.65
8. 0.105
9. 73,029,001.005
10. 8,030,020.0508

Write the following using numbers:

11. Seven hundred eight
12. Six thousand, twenty-one
13. Thirteen million, seven
14. Five hundred twenty-five billion, six hundred thousand, thirty-nine
15. Eleven million, forty-four thousand, nine
16. Three thousand, thirteen and five tenths
17. Eighty-five hundredths
18. Eight billion, fifty-seven and ninety-nine ten thousandths
19. Three hundred twenty-five million, twenty thousand and fourteen hundredths
20. Fifteen thousandths