

## Lesson 4: Rounding Numbers

**Purpose of Lesson:** You will learn to round whole numbers.

Sale! Speakloud Wireless flip phone only \$29.90!

Camera phone \$89.70!

One Year Service Contract - unlimited minutes \$498!



Are you ever fooled by these ads? Probably not. We all know that the flip phone costs about \$30. The camera phone costs about \$90. A one year contract will put you out almost 500 bucks!



We know this because we **round**, by increasing or decreasing a number to the next digit. We do this to estimate the price of something we want to buy. If a number is 5 or greater, round to the higher value. If a number is 4 or lower, round to the lower value. For example, \$29.90 rounds to thirty dollars because **.9** is closer to one than zero. Let's look at a **number line** to represent this.



The camera phone at \$89.70 is rounded to \$90, the nearest tens place because of the 9 in the ones place.



The contract, \$498 is rounded to the hundreds.



Sometimes we need to round down. If the **bold** number is less than 5, the next higher place value remains the same. For example, **5**4 is closer to 50, so we round down to 50. If the **bold** number is 5 or greater, increase the number to the left.

See how these are rounded to the nearest ten. We will use  $\approx$  to represent the rounding symbol.

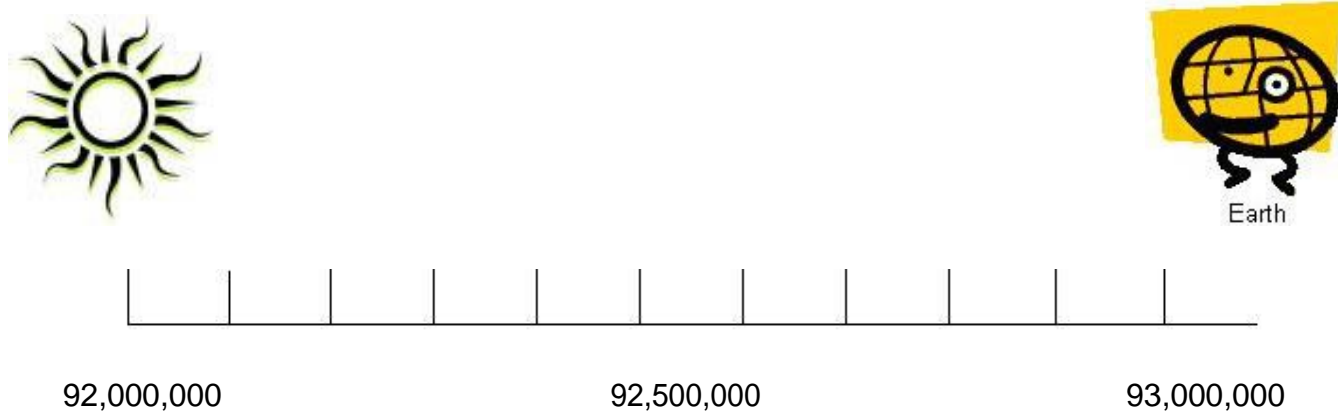
$$\underline{56} \approx \underline{60} \quad \underline{22} \approx \underline{20} \quad \underline{18}\mathbf{9} \approx \underline{190} \quad \underline{6}\mathbf{1} \approx \underline{60} \quad \underline{47}\mathbf{3} \approx \underline{470} \quad \underline{38} \approx \underline{40}$$

### Take Lesson 4 Quiz 1

Let's try some more!

### Take Lesson 4 Quiz 2

Let's look at some larger numbers now. The earth is 92,900,000 (we know that reads ninety-two million, nine hundred thousand) miles from the sun. Let's round to the nearest million. Use the **number line** below as a guide.



You can see that the earth is closer to 93,000,000 than ninety-two million.

What if we thought that the earth was only ninety-two million, three hundred thousand miles from the sun? Would you round it off to 92,000,000? If you said "yes," you are correct. If you write the word earth on the number line above 92,300,000, you will see that it would definitely be closer to 92 million.

Let's try some more!

**Take Lesson 4 Quiz 3**