

Strengthening Skills with Fourth Grade Math

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Lesson 6

Rounding Numbers to the Nearest Tens

In this lesson, we will learn how to round numbers to the nearest tens. **Rounding** a number is simply making the number easier to use but keeping it as close as possible. For example, the number 10 is very easy to use. It is easy to add it, subtract it, multiply it, and even divide it. The number 14, however, is not that easy to use. So, if we say that 14 is close to 10 and use the 10 instead, we make things easier.

There are some steps to rounding numbers to make sure that your rounded numbers stay close to the original number. Here are the steps with an example of each step.

1. The first thing you must pay attention to is to what place the number is to be rounded. In this lesson, we are only rounding to the tens place, but that will not always be the case. **For example, round 26 to the nearest tens. Notice it says to the tens place.**
2. Find the digit that is in that place and underline it, then look at the digit to the right of it. **The 2 is in the tens place, so we look to the right at the ones place.**
3. Decide if that digit (the one on the right) is less than 5 or 5 or greater. **The digit in the ones place is a 6, so it is greater than 5.**
4. If the digit is less than 5, then you leave the digit that is being rounded the same as it is. However, if the digit on the right is 5 or greater, the digit being rounded goes up to the next digit. **Since the 6 is greater than 5, we round the 2 up to a 3 and say that 26 rounds to 30.**

Let's do some problems together. Round the following numbers to the nearest tens.

34 = to round 34 to the nearest tens, we underline the 3. Then look at the 4 and decide that it is less than 5. Therefore, we round down to 30.

85 = to round 85 to the nearest tens, we underline the 8. Then look at the 5 and decide that it is 5 or greater. Therefore, we round up to 90.

Now try to do the following problems on your own. Round the following numbers to the nearest tens.

$43 = \underline{\hspace{2cm}}$

$48 = \underline{\hspace{2cm}}$

$17 = \underline{\hspace{2cm}}$

$35 = \underline{\hspace{2cm}}$

The answers for the problems you just did are in the answer key. If you got any wrong, try to figure out why it was wrong before you move on to the next section.

Here are more numbers to round to the nearest tens. Write the answer on the line after the number.

$84 = \underline{\hspace{2cm}}$

$27 = \underline{\hspace{2cm}}$

$38 = \underline{\hspace{2cm}}$

$69 = \underline{\hspace{2cm}}$

$13 = \underline{\hspace{2cm}}$

$41 = \underline{\hspace{2cm}}$

$92 = \underline{\hspace{2cm}}$

$56 = \underline{\hspace{2cm}}$

$75 = \underline{\hspace{2cm}}$

Good job! In the next lesson, we will learn how to round bigger numbers.

Lesson 7

Rounding Numbers to the Nearest Hundreds

In the last lesson, you learned how to round numbers to the nearest tens. Rounding to the nearest hundreds is not very different. The steps are the same. The only difference is what place you are rounding to.

Here are the steps from the previous lesson with a new example of each step rounding to the hundreds place.

1. The first thing you must pay attention to is to what place the number is to be rounded. For example, round 126 to the nearest hundreds. Notice it says to the hundreds place.
2. Find the digit that is in that place and underline it, then look at the digit to the right of it. The 1 is in the hundreds place, so we look to the right at the tens place.
3. Decide if that digit (the one on the right) is less than 5 or 5 or greater. The digit in the tens place is a 2, so it is less than 5.
4. If the digit is less than 5, then you leave the digit that is being rounded the same as it is. However, if the digit on the right is 5 or greater, the digit being rounded goes up to the next digit. Since the 2 is less than 5, we leave the 1 and say that 126 rounds to 100.

Let's do some problems together. Round the following numbers to the nearest hundreds.

324 = to round 324 to the nearest hundreds, we underline the 3. Then look at the 2 and decide that it is less than 5. Therefore, we round down to 300.

659 = to round 659 to the nearest hundreds, we underline the 6. Then look at the 5 and decide that it is 5 or greater. Therefore, we round up to 700.

Now try to do the following problems on your own. Round the following numbers to the nearest hundreds.

$243 = \underline{\hspace{2cm}}$

$548 = \underline{\hspace{2cm}}$

$175 = \underline{\hspace{2cm}}$

$352 = \underline{\hspace{2cm}}$

The answers for the problems you just did are in the answer key. If you got any wrong, try to figure out why it was wrong before you move on to the next section.

Let's try rounding more numbers to the nearest hundreds. Write the answer on the line after the number.

$191 = \underline{\hspace{2cm}}$

$927 = \underline{\hspace{2cm}}$

$239 = \underline{\hspace{2cm}}$

$862 = \underline{\hspace{2cm}}$

$673 = \underline{\hspace{2cm}}$

$364 = \underline{\hspace{2cm}}$

$428 = \underline{\hspace{2cm}}$

$455 = \underline{\hspace{2cm}}$

$742 = \underline{\hspace{2cm}}$

$785 = \underline{\hspace{2cm}}$

$816 = \underline{\hspace{2cm}}$

$588 = \underline{\hspace{2cm}}$

Rounding Numbers to the Nearest Thousands

The same steps apply no matter how big the number is that you are trying to round. Now we are going to use these steps to round to the nearest thousands.

Let's do some problems together. Round the following numbers to the nearest thousands.

3,214 = to round 3,214 to the nearest thousands, we underline the 3. Then look at the 2 and decide that it is less than 5. Therefore, we round down to 3,000.

6,592 = to round 6,592 to the nearest thousands, we underline the 6. Then look at the 5 and decide that it is 5 or greater. Therefore, we round up to 7,000.

Now try to do the following problems on your own. Round the following numbers to the nearest thousands.

$2,423 = \underline{\hspace{2cm}}$

$5,481 = \underline{\hspace{2cm}}$

$1,875 = \underline{\hspace{2cm}}$

$3,521 = \underline{\hspace{2cm}}$

The answers for the problems you just did are in the answer key. If you got any wrong, try to figure out why it was wrong before you move on to the next section. Let's try rounding more numbers to the nearest thousands. Write the answer on the line after the number.

$6,911 = \underline{\hspace{2cm}}$

$3,578 = \underline{\hspace{2cm}}$

$1,629 = \underline{\hspace{2cm}}$

$4,876 = \underline{\hspace{2cm}}$

$7,243 = \underline{\hspace{2cm}}$

$2,735 = \underline{\hspace{2cm}}$

$8,675 = \underline{\hspace{2cm}}$

$9,167 = \underline{\hspace{2cm}}$

$4,486 = \underline{\hspace{2cm}}$

$6,219 = \underline{\hspace{2cm}}$

$8,354 = \underline{\hspace{2cm}}$

$5,892 = \underline{\hspace{2cm}}$

Let's see what you remember about rounding. Round each of the numbers to the nearest place value that is underlined. In other words, if the tens place is underlined, round to the nearest tens; if the hundreds place is underlined, round to the nearest hundreds; and so on.

$\underline{1},725 = \underline{\hspace{2cm}}$

$\underline{2}7 = \underline{\hspace{2cm}}$

$\underline{7},142 = \underline{\hspace{2cm}}$

$\underline{6}27 = \underline{\hspace{2cm}}$

$\underline{5}6 = \underline{\hspace{2cm}}$

$\underline{1}35 = \underline{\hspace{2cm}}$

$19 = \underline{\hspace{2cm}}$

$3,424 = \underline{\hspace{2cm}}$

$78 = \underline{\hspace{2cm}}$

$5,246 = \underline{\hspace{2cm}}$

$385 = \underline{\hspace{2cm}}$

$722 = \underline{\hspace{2cm}}$

$34 = \underline{\hspace{2cm}}$

$943 = \underline{\hspace{2cm}}$

$92 = \underline{\hspace{2cm}}$

$2,588 = \underline{\hspace{2cm}}$

$69 = \underline{\hspace{2cm}}$

$438 = \underline{\hspace{2cm}}$

$492 = \underline{\hspace{2cm}}$

$9,273 = \underline{\hspace{2cm}}$

$8,439 = \underline{\hspace{2cm}}$

Good job! In the next lesson, we will learn how to use rounding to estimate your answers.

SAMPLE

Lesson 8

Estimating the Answer

We have learned that rounding numbers makes them easier to work with. Now we are going to round numbers so that we can estimate the answers. **Estimating** means finding an answer that is close to the exact answer. To estimate our answers, we must round our numbers first. For example, let's say that one kid has 11 apples and another kid has 8 apples. We can round the numbers to 10 and 10 and say that there are about 20 apples total. Let's look closer at this problem.

Problem in words	Exact problem	Estimated problem
apples	11	10
+ apples	+8	+10
<hr/> total	<hr/> ?	<hr/> 20

Estimating is used often in everyday life. For example, let's say the football team has 19 players. The coach wants to bring every player 3 bottles of water. How many bottles should he bring? Sure, he could figure it out exactly if he wanted to. However, it is much easier for him to say that 19 rounds to 20 and 20 times 3 is 60. That way he knows that if he brings 60 bottles of water, he'll have about the right amount.

Problem in words	Exact problem	Estimated problem
players	19	20
x water	x 3	x 3
<hr/> total	<hr/> ?	<hr/> 60

Let's practice estimating some answers. Estimate the following answers, then solve the problem to see if your answers are close. The first one is done for you.

111	100	99	_____
+65	+70	-11	_____
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176	170		

14	_____	289	_____
+8	_____	-99	_____
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Here's more practice estimating some answers. Estimate the following answers, then solve the problem to see if your answers are close.

127	_____	584	_____
+75	_____	-49	_____
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39	_____	498	_____
+6	_____	-64	_____
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Good job! In the next lesson, we will review everything we have learned to prepare for a test.

Lesson 9

Review

In this lesson, we will review everything we have learned in the last eight lessons to prepare for a test during the next lesson.

Important Vocabulary

Whole numbers are 0, 1, 2, 3, and so on forever and do not contain fractional or decimal parts or negatives.

The **digits** are 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.

The location of the digit in the number determines its **place value**.

Decimal numbers are numbers that contain a decimal point followed by digits.

A **decimal point** is a dot located in a number which separates the digits that are greater than 1 and the digits with a value of less than one.

The **expanded form** is basically just writing the different sections of a number separately and adding them together.

Rounding a number is simply making the number easier to use but keeping it as close as possible.

Estimating means finding an answer that is close to the exact answer.

Let's practice some of the types of problems you will see on the test.

Circle the whole numbers below.

-65

25

32.7

55 1/2

22

3,546

In what place is the 8 in the following numbers?

8,564 – the 8 is in the _____ place and has a value of _____

5,826 – the 8 is in the _____ place and has a value of _____

85 – the 8 is in the _____ place and has a value of _____

50.8 – the 8 is in the _____ place and has a value of _____

6.258 – the 8 is in the _____ place and has a value of _____

516.28 – the 8 is in the _____ place and has a value of _____

Write the following number in expanded form.

1,354 = _____

Round the following numbers to the place given.

Tens: 84 = _____ 65 = _____ 78 = _____

Hundreds: 155 = _____ 278 = _____ 123 = _____

Thousands: 1,235 _____ 2,678 _____ 3,589 _____

Estimate the answers for the following problems. Then solve the actual problem to see how close the answer is.

211	_____	96	_____
+68	_____	-51	_____
_____		_____	

34	_____	389	_____
-18	_____	+199	_____
_____		_____	

The answers for the problems you just did are in the answer key. If you got any wrong, try to figure out why it was wrong and study that type of problem before you take the test.

Good job! In the next lesson, we will take the test.

Lesson 10 - Test

Circle the whole numbers below.

55

2.5

723

$2\frac{3}{4}$

-322

4,036

In what place is the 7 in the following numbers?

7,523 – the 7 is in the _____ place and has a value of _____

73 – the 7 is in the _____ place and has a value of _____

239.7 – the 7 is in the _____ place and has a value of _____

36.27 – the 7 is in the _____ place and has a value of _____

Write the following number in expanded form.

2,567 = _____

Round the following numbers to the place given.

Tens: 73 = _____ 89 = _____ 65 = _____

Hundreds: 284 = _____ 555 = _____ 324 = _____

Thousands: 2,567 _____ 3,753 _____ 1,085 _____

Estimate the answers for the following problems. Then solve the actual problem to see how close the answer is.

99	_____	78	_____
+58	_____	-63	_____
_____		_____	
45	_____	265	_____
-17	_____	+203	_____
_____		_____	

SAMPLE