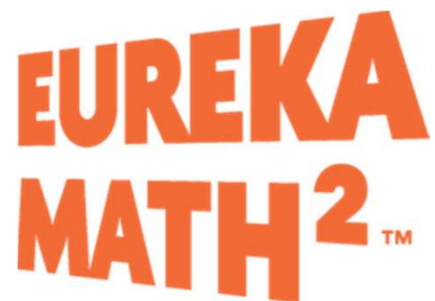




Module 4 - Lesson 8:

Round decimal numbers to any place value unit.

CCSS Standard – 5.NBT.A.4

FLUENCY (15-min)

Sprint: Multiply or Divide by Powers of 10

LEARN book (PAGE 71)

SPRINT: Students write the product or the quotient to build fluency with multiplying and dividing whole numbers by powers of 10 from Module 1.

1.	$5 \times 100 = \underline{\hspace{2cm}}$	500
2.	$5 \times 10^2 = \underline{\hspace{2cm}}$	500
3.	$8,000 \div 1,000 = \underline{\hspace{2cm}}$	8
4.	$8,000 \div 10^3 = \underline{\hspace{2cm}}$	8

I don't expect you to finish. Do as many problems as you can. Go for YOUR personal best.
Take your mark. Get set. Think!

FLUENCY (15-min)

Sprint: Multiply or Divide by Powers of 10

Sprint A – Page 72

Sprint A



STOP!!

Underline the last problem that you did.

I am going to read the answers. If you got it right, call out “Yes!” If you made a mistake, circle the answer.

Count the number you got **correct** and write the number at the top of the page.

THIS WILL BE YOUR PERSONAL GOAL FOR SPRINT B

A

Write the product or quotient.

Number Correct: _____

1.	$4 \times 100 =$ _____	400
2.	$4 \times 10^2 =$ _____	400
3.	$24 \times 10^2 =$ _____	2,400
4.	$5 \times 1,000 =$ _____	5,000
5.	$5 \times 10^3 =$ _____	5,000
6.	$35 \times 10^3 =$ _____	35,000
7.	$6 \times 10,000 =$ _____	60,000
8.	$6 \times 10^4 =$ _____	60,000
9.	$46 \times 10^4 =$ _____	460,000
10.	$7 \times 100,000 =$ _____	700,000
11.	$7 \times 10^5 =$ _____	700,000
12.	$57 \times 10^5 =$ _____	5,700,000
13.	$300 \div 100 =$ _____	3
14.	$300 \div 10^2 =$ _____	3
15.	$6,300 \div 10^2 =$ _____	63
16.	$4,000 \div 1,000 =$ _____	4
17.	$4,000 \div 10^3 =$ _____	4
18.	$74,000 \div 10^3 =$ _____	74
19.	$50,000 \div 10,000 =$ _____	5
20.	$50,000 \div 10^4 =$ _____	5
21.	$850,000 \div 10^4 =$ _____	85
22.	$1,850,000 \div 10^4 =$ _____	185

23.	$5 \times 10^4 =$ _____	50,000
24.	$6 \times 10^5 =$ _____	600,000
25.	$7 \times 10^6 =$ _____	7,000,000
26.	$8 \times 10^6 =$ _____	8,000,000
27.	$68 \times 10^5 =$ _____	6,800,000
28.	$368 \times 10^4 =$ _____	3,680,000
29.	$60,000 \div 10^4 =$ _____	6
30.	$700,000 \div 10^5 =$ _____	7
31.	$8,000,000 \div 10^6 =$ _____	8
32.	$9,000,000 \div 10^6 =$ _____	9
33.	$9,900,000 \div 10^5 =$ _____	99
34.	$4,990,000 \div 10^4 =$ _____	499
35.	$3 \times 10^2 =$ _____	300
36.	$4 \times 10^3 =$ _____	4,000
37.	$50 \times 10^2 =$ _____	5,000
38.	$60 \times 10^4 =$ _____	600,000
39.	$637 \times 10^3 =$ _____	637,000
40.	$737 \times 10^5 =$ _____	73,700,000
41.	$70,000 \div 10^2 =$ _____	700
42.	$8,000,000 \div 10^4 =$ _____	800
43.	$8,090,000 \div 10^3 =$ _____	8,090
44.	$90,900,000 \div 10^5 =$ _____	909

FLUENCY (15-min)

Sprint: Multiply or Divide by Powers of 10

Sprint A – Page 74

Take your mark. Get set. Improve!

Sprint B



STOP!!

Underline the last problem that you did.

I am going to read the answers. If you got it right, call out “Yes!” If you made a mistake, circle the answer.

Count the number you got **correct** and write the number at the top of the page.

Determine your improved score!

B

Write the product or quotient.

1.	$3 \times 100 =$ _____	300
2.	$3 \times 10^2 =$ _____	300
3.	$13 \times 10^2 =$ _____	1,300
4.	$4 \times 1,000 =$ _____	4,000
5.	$4 \times 10^3 =$ _____	4,000
6.	$24 \times 10^3 =$ _____	24,000
7.	$5 \times 10,000 =$ _____	50,000
8.	$5 \times 10^4 =$ _____	50,000
9.	$35 \times 10^4 =$ _____	350,000
10.	$6 \times 100,000 =$ _____	600,000
11.	$6 \times 10^5 =$ _____	600,000
12.	$46 \times 10^5 =$ _____	4,600,000
13.	$200 \div 100 =$ _____	2
14.	$200 \div 10^2 =$ _____	2
15.	$5,200 \div 10^2 =$ _____	52
16.	$3,000 \div 1,000 =$ _____	3
17.	$3,000 \div 10^3 =$ _____	3
18.	$63,000 \div 10^3 =$ _____	63
19.	$40,000 \div 10,000 =$ _____	4
20.	$40,000 \div 10^4 =$ _____	4
21.	$740,000 \div 10^4 =$ _____	74
22.	$1,740,000 \div 10^4 =$ _____	174

Number Correct: _____

Improvement: _____

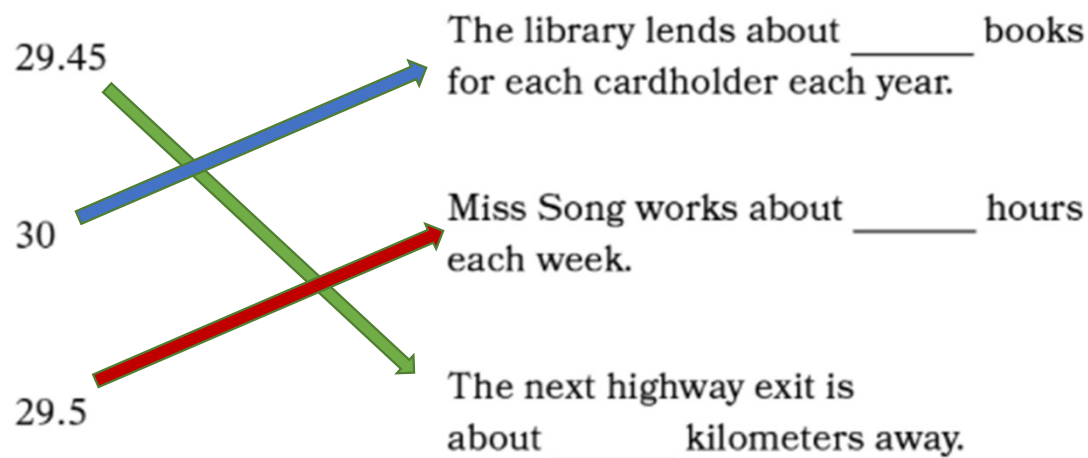
23.	$4 \times 10^4 =$ _____	40,000
24.	$5 \times 10^5 =$ _____	500,000
25.	$6 \times 10^6 =$ _____	6,000,000
26.	$7 \times 10^6 =$ _____	7,000,000
27.	$57 \times 10^5 =$ _____	5,700,000
28.	$257 \times 10^4 =$ _____	2,570,000
29.	$50,000 \div 10^4 =$ _____	5
30.	$600,000 \div 10^5 =$ _____	6
31.	$7,000,000 \div 10^6 =$ _____	7
32.	$8,000,000 \div 10^6 =$ _____	8
33.	$8,800,000 \div 10^5 =$ _____	88
34.	$3,880,000 \div 10^4 =$ _____	388
35.	$2 \times 10^2 =$ _____	200
36.	$3 \times 10^3 =$ _____	3,000
37.	$40 \times 10^2 =$ _____	4,000
38.	$50 \times 10^4 =$ _____	500,000
39.	$526 \times 10^3 =$ _____	526,000
40.	$626 \times 10^5 =$ _____	62,600,000
41.	$60,000 \div 10^2 =$ _____	600
42.	$7,000,000 \div 10^4 =$ _____	700
43.	$7,080,000 \div 10^3 =$ _____	7,080
44.	$80,800,000 \div 10^5 =$ _____	808

LAUNCH (5-min)

Consider which rounded numbers make sense in particular situations.

LEARN book page 75.

1. The numbers shown are estimates for each situation. For each situation, match the number that best completes the statement.



The three numbers in this problem have something in common. Each number is the result of rounding the number 29.453. Why do you think we can get different numbers when we round 29.453?

LEARN (35-min)

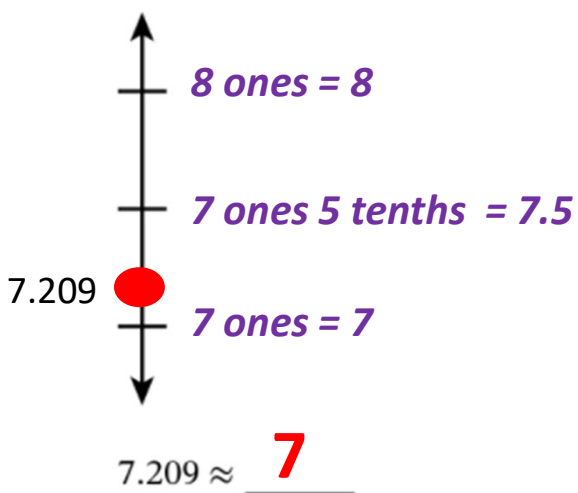
Round a Decimal to Multiple Places

LEARN book page 75.

2. Round 7.209 to each given place. Show your thinking on the number line.

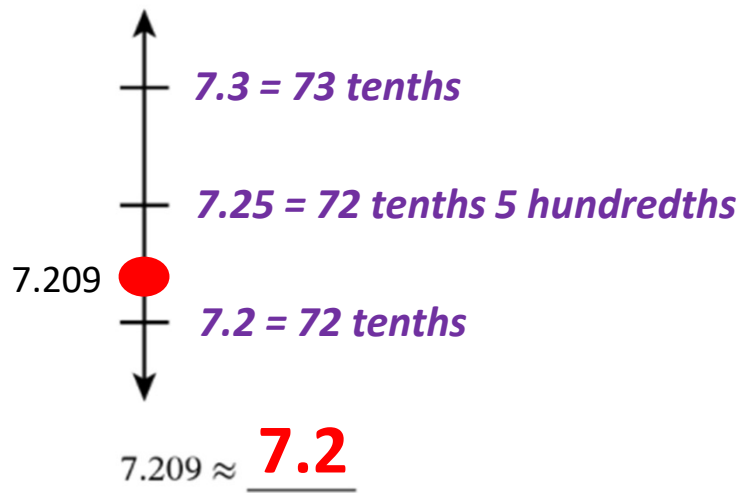
7.209

a. Nearest one



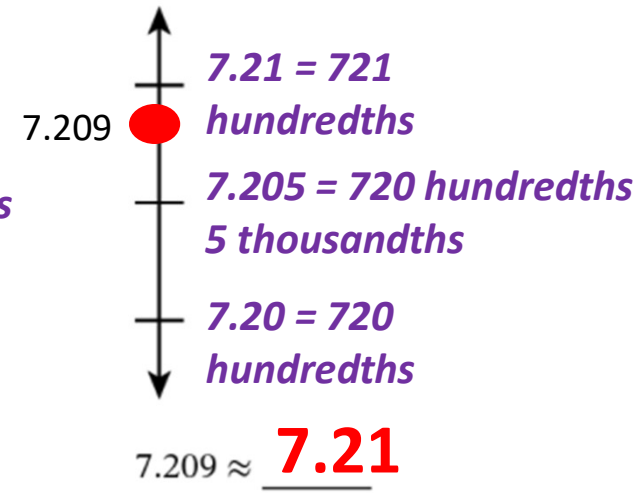
7.209

b. Nearest tenth



7.209

c. Nearest hundredth



Even though we started with the same decimal number, we rounded to different places giving us different answers.

LEARN (35-min)

Round by Using Place Value Understanding

Digital Great
Minds interactive



We can round decimal numbers without drawing a number line!
Instead, we can use place value understanding to round.
Here is an example....

48.743

The most important thing is to know what place you need to round to. Let's round this number to the **NEAREST TEN**.

48.743

The red four is in the TENS place. That means it can round to either 40 or 50.

The eight right next to it makes it more than halfway between 40 and 50.

Therefore, 48.743 is closer to 50 than it is to 40.

48.743 $\approx$ 50



Now, let's round the same number to the **NEAREST HUNDREDTHS**.

48.743

Rules of Rounding:

Identify the place you are asked to round to.

Look to the right of that #.

5 or more – round up.

4 or less – keep the number as it is.

48.743

The green four is in the HUNDREDTHS place.

That means it can round to either 48.74 or 48.75

The three right next to it makes it less than halfway between 48.74 and 48.75.

Therefore, 48.743 is closer to 48.74 than it is to 48.75.

48.743 $\approx$ 48.74

LEARN (35-min)

Round by Using Place Value Understanding

LEARN book page 76.

3. Round 19.206 to each given place value.

a. Nearest ten

$$19.206 \approx \underline{20}$$

b. Nearest one

$$19.206 \approx \underline{19}$$

c. Nearest tenth

$$19.206 \approx \underline{19.2}$$

d. Nearest hundredth

$$19.206 \approx \underline{19.21}$$

Rules of Rounding:

Identify the place you are asked to round to.

Look to the right of that #.

5 or more – round up.

4 or less – keep the number as it is.

A. $\underline{1}9.206$

B. $1\underline{9}.206$

C. $19.\underline{2}06$

D. $19.2\underline{0}6$

LEARN (35-min)

Round by Using Place Value Understanding

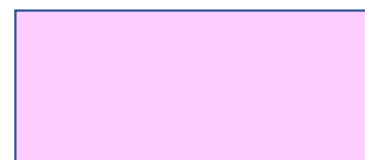


Whiteboard Pass Activity:

Write a decimal number less than 20 but greater than 1 on your board to the **thousandths place**.

Example: 15.123

Exchange boards with a partner and round to the place given.



Rules of Rounding:

Identify the place you are asked to round to.

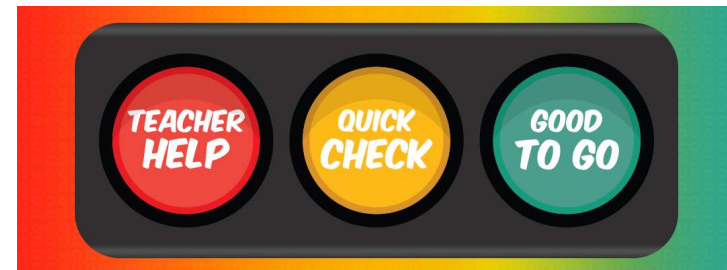
Look to the right of that #.

5 or more – round up.

4 or less – keep the number as it is.

LAND (10-min)

Exit Ticket



Name

Date



8

Round 44.897 to each given place.

- a. Nearest ten
- b. Nearest one
- c. Nearest tenth
- d. Nearest hundredth

Exit Ticket – PAGE 81

Small Group Time:

Problem Set Pages 77 – 80

Homework:

Page 51 APPLY BOOK