

Decimal Rounding Quest

Use place value to choose the closest value.

GRADE 5 • NY-5.NBT.4

NY-5.NBT.4 "Use place value understanding to round decimals to any place."

NAME _____

DATE _____

ROUND WITH PLACE VALUE

Find the digit in the place you are rounding to. Look at the digit just to its right. If it is 5 or more, increase the rounding digit by 1. If it is 4 or less, keep it the same, then change digits to the right to zeros or leave them off after a decimal point.

WORKED EXAMPLE

Round 47.386 to the nearest hundredth.

1. The hundredths digit is 8.
2. The digit to its right, the thousandths digit, is 6.
3. Because 6 is 5 or more, increase 8 to 9.
4. Write 47.39.

Answer: 47.39

PRACTICE 6 problems

1 Round 6.74 to the nearest whole number.

ANSWER _____

2 Round 13.268 to the nearest tenth.

ANSWER _____

3 Round 0.459 to the nearest hundredth.

ANSWER _____

4 Round 82.105 to the nearest tenth.

ANSWER _____

5 Round 5.999 to the nearest hundredth.

ANSWER _____

6 Round 304.6507 to the nearest thousandth.

ANSWER _____

APPLY IT Show your work

- 1** A video game update uses 18.746 gigabytes of storage. Round the storage used to the nearest tenth of a gigabyte.

WORK SPACE

ANSWER _____

- 2** Jayden ran 2.385 kilometers during a school fun run. Round the distance to the nearest hundredth of a kilometer.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A number is written as 24.65_. It rounds to 24.65 when rounded to the nearest hundredth and to 24.7 when rounded to the nearest tenth. What digits could go in the blank? Explain why.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Round 6.74 to the nearest whole number.	7
2	Round 13.268 to the nearest tenth.	13.3
3	Round 0.459 to the nearest hundredth.	0.46
4	Round 82.105 to the nearest tenth.	82.1
5	Round 5.999 to the nearest hundredth.	6.00
6	Round 304.6507 to the nearest thousandth.	304.651

PART 2 • APPLY IT

- 18.7 gigabytes** The tenths digit is 7, and the hundredths digit is 4. Keep the tenths digit the same.
- 2.39 kilometers** The hundredths digit is 8, and the thousandths digit is 5. Increase the hundredths digit by 1.

CHALLENGE

0, 1, 2, 3, or 4. Each digit keeps the number at 24.65 when rounded to the nearest hundredth, and 24.65 through 24.654 rounds to 24.7 when rounded to the nearest tenth.

Accept equivalent decimal forms when the rounded value is unchanged, such as 6 instead of 6.00. In the challenge, accept any clear explanation that identifies all five possible digits.