LESSON MAKER PRO

Decimal Detectives

Read, compare, and round decimals through thousandths.

GRADE 5 · TEKS 5.2

5.2 "Number and operations. The student applies mathematical process standards to represent, compare, and order positive rational numbers and understand relationships as related to place value..."

NAME _____ DATE _____

DECIMAL PLACE POWER

Digits to the right of the decimal point name tenths, hundredths, and thousandths. To compare decimals, line up the decimal points and compare digits from left to right. To round, look at the digit just to the right of the place you are rounding to.

WORKED EXAMPLE

Write 6.482 in expanded notation.

1. The digits show 6 ones, 4 tenths, 8 hundredths, and 2 thousandths.
2. Write each place value as an addend.
3. 6.482 = 6 + 0.4 + 0.08 + 0.002.

Answer: 6 + 0.4 + 0.08 + 0.002

PRACTICE 6 problems

1 What is the value of the 1 in 3.719?

ANSWER _____

2 Write 8.305 in expanded notation.

ANSWER _____

3 Write <, >, or = to make the comparison true: 4.267 __ 4.276

ANSWER _____

4 Order these decimals from least to greatest: 0.908, 0.89, 0.98

ANSWER _____

5 Round 12.846 to the nearest tenth.

ANSWER _____

6 Round 5.173 to the nearest hundredth.

ANSWER _____

APPLY IT Show your work

1 Mia finished a coding game challenge in 14.768 seconds. The club leaderboard shows times rounded to the nearest hundredth. What time should the leaderboard show?

WORK SPACE

ANSWER _____

2 A game update took 2.405 minutes to download on Leo's tablet, 2.45 minutes on Ana's tablet, and 2.054 minutes on Sam's tablet. Order the download times from quickest to slowest.

WORK SPACE

ANSWER _____

CHALLENGE One step up

The number 7.3x6 must be greater than 7.356. It must also round to 7.4 to the nearest tenth. What digit or digits can x be? Explain your reasoning.

WORK SPACE AND ANSWER

ANSWER KEY # Decimal Detectives

GRADE 5 · TEKS 5.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the value of the 1 in 3.719?	**0.01**
2	Write 8.305 in expanded notation.	**8 + 0.3 + 0.005**
3	Write <, >, or = to make the comparison true: 4.267 __ 4.276	**<**
4	Order these decimals from least to greatest: 0.908, 0.89, 0.98	**0.89, 0.908, 0.98**
5	Round 12.846 to the nearest tenth.	**12.8**
6	Round 5.173 to the nearest hundredth.	**5.17**

PART 2 · APPLY IT

1. **14.77 seconds** The hundredths digit is 6, and the thousandths digit is 8. Round the hundredths digit up to show 14.77 seconds.
2. **2.054 minutes, 2.405 minutes, 2.45 minutes** Write 2.45 as 2.450 to compare all three decimals to the thousandths place. The least time is quickest.

CHALLENGE

x can be 6, 7, 8, or 9. Each choice makes 7.3x6 greater than 7.356, and the hundredths digit is 6 or greater, so the number rounds to 7.4.

Accept equivalent expanded notation that includes zero-value addends, such as 8 + 0.3 + 0.00 + 0.005. Accept 2.450 in the ordered list as equivalent to 2.45.