LESSON MAKER PRO

Decimal Line Detectives

Read each point by counting equal spaces.

GRADE 4 · TEKS 4.2.H

4.2.H "determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line."

NAME _____ DATE _____

READ THE SPACES

First, look at the two labeled numbers and how many equal spaces are between them. When 1 whole is split into 10 equal spaces, each space is 0.1. When 1 tenth is split into 10 equal spaces, each space is 0.01.

WORKED EXAMPLE

A number line starts at 2.10 and ends at 2.20. It is divided into 10 equal spaces. Point A is on the eighth tick after 2.10. What decimal names A?

1. 20 - 2.10 = 0.10, or 10 hundredths.
2. 10 equal spaces means each step is 0.01.
3. Count 8 steps: 2.10 + 0.08 = 2.18.

Answer: A = 2.18

PRACTICE 6 problems

1 A number line starts at 1.0 and ends at 2.0. It is divided into 10 equal spaces. Point B is on the seventh tick after 1.0. What decimal names B?

ANSWER _____

2 A number line starts at 3.40 and ends at 3.50. It is divided into 10 equal spaces. Point C is on the sixth tick after 3.40. What decimal names C?

ANSWER _____

3 A number line starts at 0.70 and ends at 0.80. It is divided into 10 equal spaces. Point D is on the fourth tick after 0.70. What decimal names D?

ANSWER _____

4 A number line starts at 5.0 and ends at 6.0. It is divided into 10 equal spaces. Point E is on the second tick after 5.0. What decimal names E?

ANSWER _____

5 A number line starts at 1.25 and ends at 1.35. It is divided into 10 equal spaces. Point F is on the eighth tick after 1.25. What decimal names F?

ANSWER _____

6 A number line starts at 0.90 and ends at 1.00. It is divided into 10 equal spaces. Point G is on the ninth tick after 0.90. What decimal names G?

ANSWER _____

APPLY IT Show your work

1 In a bike racing game, Maya's distance bar runs from 2.30 km to 2.40 km. The bar is divided into 10 equal spaces, and her marker is on the ninth tick after 2.30 km. How far has Maya raced?

WORK SPACE

ANSWER _____

2 A robot race timer has a number line from 14.0 seconds to 15.0 seconds. It is divided into 10 equal spaces, and Jordan's robot finishes on the fourth tick after 14.0 seconds. What is the robot's time?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A number line runs from 7.80 to 7.90 and has 10 equal spaces. Point Z is on the third tick after 7.80. Sam says Z is 7.83. Lee says Z is 7.8. Who is correct? Explain your reasoning.

_____

_____

ANSWER KEY

Decimal Line Detectives

GRADE 4 · TEKS 4.2.H

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A number line starts at 1.0 and ends at 2.0. It is divided into 10 equal spaces. Point B is on the seventh tick after 1.0. What decimal names B?	**1.7**
2	A number line starts at 3.40 and ends at 3.50. It is divided into 10 equal spaces. Point C is on the sixth tick after 3.40. What decimal names C?	**3.46**
3	A number line starts at 0.70 and ends at 0.80. It is divided into 10 equal spaces. Point D is on the fourth tick after 0.70. What decimal names D?	**0.74**
4	A number line starts at 5.0 and ends at 6.0. It is divided into 10 equal spaces. Point E is on the second tick after 5.0. What decimal names E?	**5.2**
5	A number line starts at 1.25 and ends at 1.35. It is divided into 10 equal spaces. Point F is on the eighth tick after 1.25. What decimal names F?	**1.33**
6	A number line starts at 0.90 and ends at 1.00. It is divided into 10 equal spaces. Point G is on the ninth tick after 0.90. What decimal names G?	**0.99**

PART 2 · APPLY IT

1. **2.39 km** The distance from 2.30 to 2.40 is 10 hundredths, so each space is 0.01 km. Nine spaces after 2.30 is 2.39 km.
2. **14.4 seconds** The distance from 14.0 to 15.0 is split into tenths, so each space is 0.1 second. Four spaces after 14.0 is 14.4 seconds.

CHALLENGE

Sam is correct. Each tick is 0.01, so three ticks after 7.80 is 7.83. Lee's 7.8 is the same as 7.80, the starting point.

Accept equivalent decimals that name the same point, such as 1.70 for 1.7 or 5.20 for 5.2. For the challenge, accept an explanation that 7.8 equals 7.80 and the third hundredth tick is 7.83.