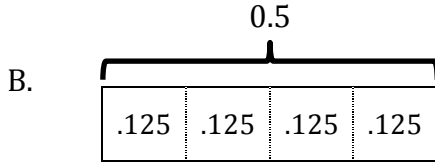


Choose Yes or No to indicate which of the following could be used to find $0.5 \div 4$.

A. $= \frac{1}{2} \times \frac{4}{1}$

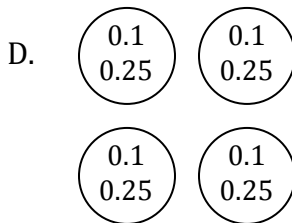
 Yes

 No

 Yes

 No

C. 0.5×0.25

 Yes

 No

 Yes

 No

Scoring:

2 points: Selected B and C only.

1 point: Selected either B or C only.

Selected either B or C and only one other wrong answer.

0 points: Any other combination.

Key and Distractor Analysis:

A. Student probably changed to multiplication but did not multiply by the reciprocal of 4.

B. Key. Using the bar model to decompose 0.5 into four equal parts of 0.125.

C. Key. Dividing by 4 is the same as multiplying by $\frac{1}{4}$ or 0.25.

D. Student is distributing 0.5 to four equal groups but probably misunderstands place value and distributed 0.25 instead of 0.025 to each of the four groups.

Number and Operations in Base Ten

5.NBT

Understand place value system.

7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.