

Math

Grades	Selected Response	Technology Enhanced	Constructed Response	Total
Grades 3-5	18-20	6-8	5	31
Grades 6-7	28-30	6-8	5	41
Grade 8	31-34	5-8	6	45
Early High School	31-34	5-8	6	45

ACT Aspire Math

Mario and Jenna each drew a circle. Mario divided his circle in half. Jenna divided her circle into twice as many equal sections as Mario's circle.

Select the word below that names the fraction Jenna divided her circle into, and select **all** of the figures below that could represent Jenna's circle.

thirds

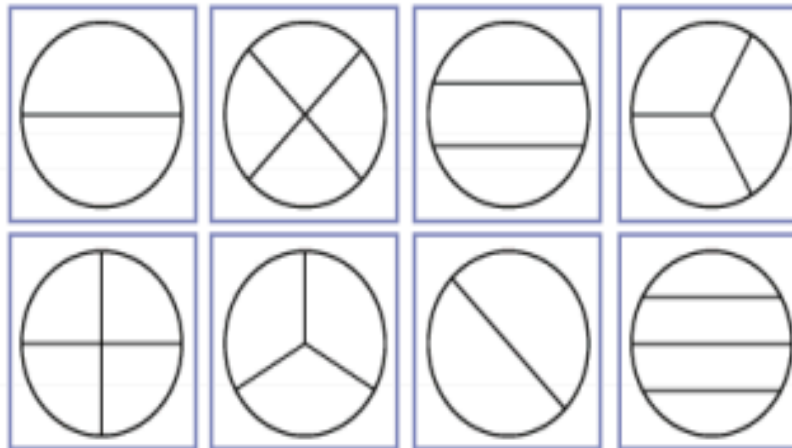
halves

three

four

two

fourths



**Appropriate
grade level(s)**

Foundation and Grade Level Progress reporting categories

DOK level

3–6

Foundation

2

ACT Aspire-Math

The principal of a school must buy 19 desks for a new classroom. Each desk costs \$61. A student calculates the total cost of the desks using the thought process below:

20 desks at \$60 each would cost \$1,200.

So 19 desks at \$60 each would cost $\$1,200 - \60 .

Because the price of 1 desk is \$61 and NOT \$60, I must add \$1.

So the total cost is $\$1,200 - \$60 + \$1$.

- Identify any mistakes in the student's thought process.
- Write an expression that represents the total cost of the 19 desks, and explain why it is correct.

1200

**Appropriate
grade level(s)**

Foundation and Grade Level Progress reporting categories

JE level

DOK level

4

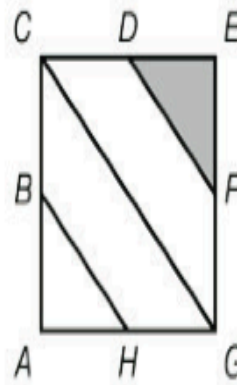
Grade Level Progress > Operations & Algebraic Thinking

2

3

ACT Aspire-Math

In square $ACEG$ shown below, B , D , F , and H are the midpoints of \overline{AC} , \overline{CE} , \overline{EG} , and \overline{AG} , respectively. A student thinks that the area of $\triangle DEF$, shown shaded, is $\frac{1}{4}$ the area of square $ACEG$. Explain why the student is NOT correct.



1200

**Appropriate
grade level(s)**

Foundation and Grade Level Progress reporting categories

JE level

DOK level

6

Grade Level Progress > Geometry

3

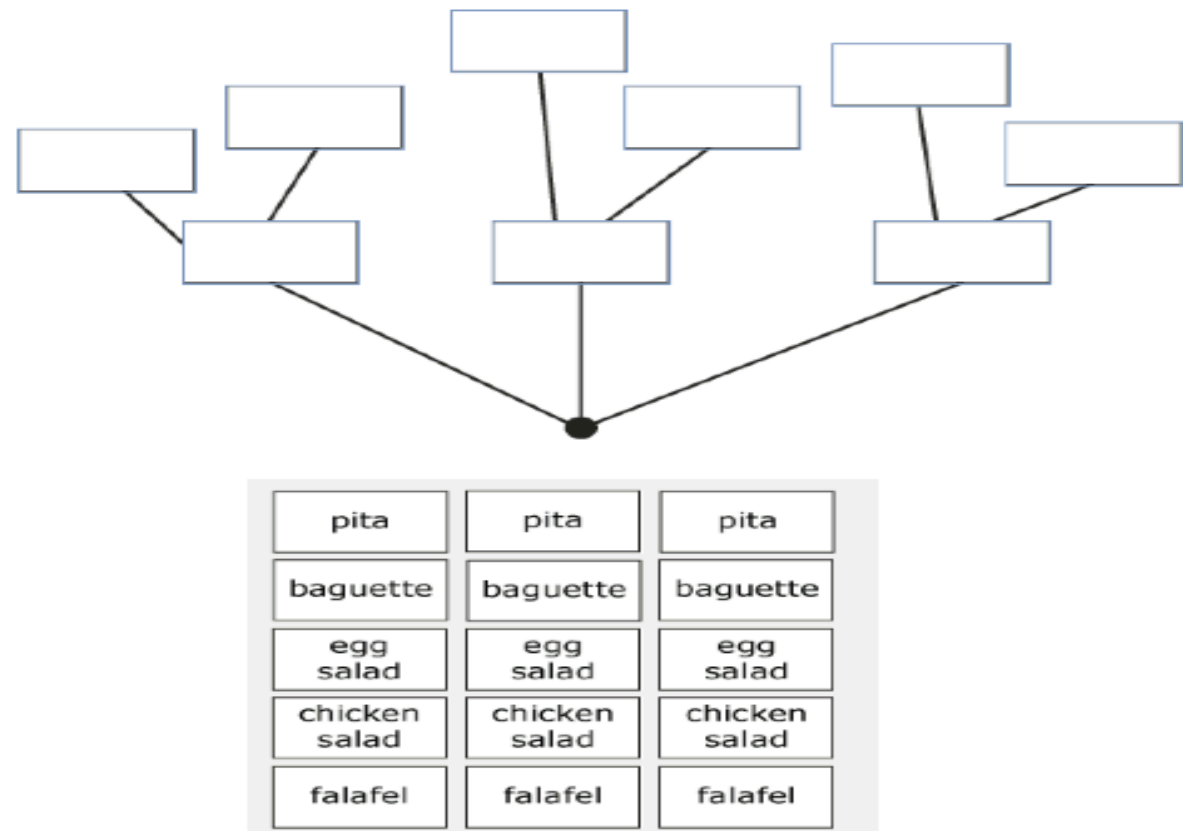
7-EHS

Foundation

3

ACT Aspire Math

Elaine's Grocery has a lunch counter where people can order 3 types of sandwiches: egg salad, chicken salad, or falafel. Sandwiches can be made with 2 types of bread: pita or baguette. Create a tree diagram by dragging and dropping the sandwich choices into the empty boxes to show all the possible combinations for a sandwich from this lunch counter.



pita	pita	pita
baguette	baguette	baguette
egg salad	egg salad	egg salad
chicken salad	chicken salad	chicken salad
falafel	falafel	falafel

Appropriate grade level(s)	Foundation and Grade Level Progress reporting categories	DOK level
7	Grade Level Progress > Statistics & Probability	2
8, EHS	Foundation	2

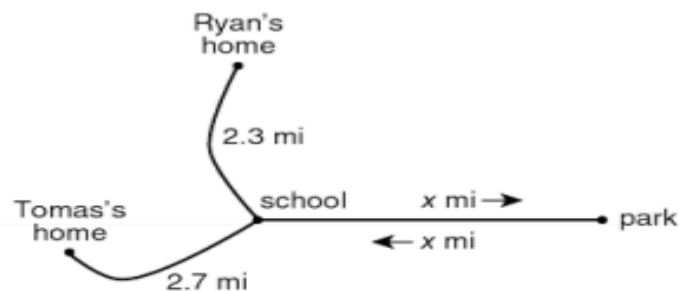
ACT Aspire Math

Ryan and Tomas walked to school and then to the park, as described below:

Ryan walked 2.3 miles from his home to meet Tomas at school.

Tomas walked 2.7 miles from his home to meet Ryan at school.

Once they were at school, the boys walked x miles to the park and then x miles back to the school.



The sum of the distance Ryan walked and the distance Tomas walked was at least 15 miles but not more than 21 miles. One of the following is the graph of the possible values of x . Which one?

- ☐ A.
- ☐ B.
- ☐ C.
- ☐ D.
- ☐ E.

Appropriate grade level(s)	Foundation and Grade Level Progress reporting categories	DOK level
7	Grade Level Progress > Expressions & Equations	3
8, EHS	Foundation	2