STUDENT
ACHIEVEMENT
PARTNERS

Smarter Balanced Assessment Item Illustrating 8.F.B.4

Cory is buying copper for a construction project. He pays $1.85 per pound of copper for the first 100 pounds. He pays $1.75 per pound of copper for every pound over 100 pounds. Cory calculated that it would cost $228.75 to purchase 125 pounds of copper. He wrote an equation that allows him to determine the cost of copper for any number of pounds of copper over 100 pounds.

His equation is in the form $y = n(x - 100) + p$ where y is the amount of money, in dollars, Cory pays for x total pounds of copper when x is greater than 100. What are his values for n and p?

Enter the value of n in the first response box.

Enter the value of p in the second response box.

Answer Key
n=1.75; p=185

Elaboration on Alignment
In grade 8, students use functions to model relationships between quantities, which makes this cluster (8.F.B) one that has a primary focus on application problems. This item targets the application aspect of rigor asking students to carefully consider the definition of the variables given and how they relate to the other quantities defined by the problem.

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