

Grades 6-8, Claim 2

### Task Model 2C.2

- The student interprets expression, equations, or graphs that represent a real-world context.
- Tasks involving expressions can involve interpreting the expression as representing a meaningful calculation arising from the context, or comparing two expressions, either equivalent or not, in terms of the calculation they represent. They can also involve interpreting constants, terms, or factors in terms of the context.
- Tasks involving solving equations in one variable can involve interpreting the solution in terms of the context.
- Tasks involving functions (Grade 8), either defined by an expression in one variable or an equation in two variables, can involve interpreting a parameter in the expression or equation; they can also involve interpreting graphical or tabular representations of the function, or making a connection between different representations.
- The wording of the problem should not reveal the answer to the interpretation step.
- Dimensions along which to vary the item include (a) varying the context (b) varying the type of expression or the type of equation to be solved (one- or two-step) (c) varying the complexity of the interpretation asked.

### Example Item 2C.2a (Grade 7):

Primary Target 2C (Content Domain EE), Secondary Target 1D (CCSS 7.EE.B), Tertiary Target 2D  
(Source: Adapted from *Illustrative Mathematics*, Grade 7.EE)

The students in Mr. Sanchez's class are converting distances measured in miles (m) to kilometers (km).

Abby and Renato use the following methods to convert miles to kilometers.

- Abby takes the number of miles, doubles it, and then subtracts 20% of the result.
- Renato first divides the number of miles by 5, then multiplies the result by 8.

Which equation correctly shows why both their methods produce the same result?

- A.  $2m - 0.20 = \frac{m}{5} \cdot 8$
- B.  $2m - 0.20(2m) = \frac{m}{5} \cdot 8$
- C.  $2m - 2.20m = \frac{m}{5} + 8\left(\frac{m}{5}\right)$
- D.  $0.20(2m) - 2m = \frac{m}{5} + 8\left(\frac{m}{5}\right)$

**Rubric:** (1 point) The student selects the correct equation (e.g., B).

**Response Type:** Multiple Choice, single correct response