

# High School / Scoring Key Lights, Candles, Action!

→ SMARTER BALANCED PERFORMANCE TASK

## Item 4

Claim 2  
FLE.B.5

SAMPLE	SCORE	RATIONALE
A	0	The student switched the meaning of $k$ and $n$ in the context of the problem. Although the equations and their notations provide clear evidence of a solid understanding of the relationships among the quantities, the statements about $n$ and $k$ are both incorrect, and this response earns 0 points.
B	1	The student correctly identified $k$ , but not $n$ . If the student had included the number of cm dropped per hour, or each hour, this could have earned full credit, but as written the response earns partial credit of 1 point.
C	2	The student correctly identified what $k$ and $n$ represent in the context of the problem.
D	2	The student correctly determined what $k$ and $n$ stand for, and further used appropriate values to specify the function for the height of each candle at time $t$ , in hours after it is lit.
E	1	The student identified $n$ partially correctly, but the given interpretation of $k$ is incorrect. The response includes an attempt to use equations to support the stated meaning of each of the parameters, and provides evidence of some valid sense-making about the relationships among the quantities. This response earns 1 point.
F	0	Although there is evidence of a lot of interpretive work in this response, the student did not provide the correct meaning of $k$ and $n$ in the equation $h = k + nt$ . The response earns 0 points.
G	2	The student correctly identified the meaning of $k$ and $n$ in the context of the problem.
H	1	The student correctly identified what $k$ means in the context of the problem, but not $n$ . The response earns 1 point.
I	2	The student wrote the function for the height of each candle after burning $t$ hours, and correctly identified both the values and meanings of $k$ and $n$ for each candle.

**Item 4** *(continued)***Claim 2**  
**FLE.B.5**

SAMPLE	SCORE	RATIONALE
J	2	The student identified the meaning of $k$ correctly, and provided two correct statements about what $n$ represents. The first of these statements, “ $n$ is negative,” is about the value of $n$ , not about what it represents, but together with the second statement, the response reflects a mathematically accurate interpretation of $n$ that is connected to the context. Although the response does not mention burn rate or constant rate explicitly, the final statement reflects the essential idea of a constant rate: the difference in height after 1 hour of burning. If the student had written “each hour” or “per hour,” this response would have been more clearly deserving of full credit. This one squeaks by.
K	0	The student provided an incomplete answer and did not include the correct meaning of either $k$ or $n$ . The response earns 0 points.