

## DOK Math Coding Practice

**1** Which expression could be used to check the answer to  $63 \div 7$ ?

- A.  $63 + 7$
- B.  $63 \times 9$
- C.  $7 + 9$
- D.  $7 \times 9$

**2** Francine is 5 inches taller than her brother Harold. If the letter  $h$  represents Harold's height, which expression could be used to determine Francine's height?

- A.  $h + 5$
- B.  $h - 5$
- C.  $h \times 5$
- D.  $h \div 5$

**3** Mario has 20 packages of building blocks, and each package has 12 blocks. He gave 2 packages of blocks to his cousin. What is the total number of **blocks** Mario had left?

- A. 18
- B. 30
- C. 216
- D. 360

**4** Kelly created a pattern using the rule "add 9 to get the next number." The first 4 numbers in her pattern are shown below.

**19, 28, 37, 46, \_\_\_\_\_, \_\_\_\_\_**

What should be the 6<sup>th</sup> number in this pattern?

- A. 55
- B. 56
- C. 64
- D. 65

**5** Evaluate the expression:

$$5n - 4, \text{ for } n = 1.2$$

- A. 2.0
- B. 2.2
- C. 5.8
- D. 56.0

**6** Look at the numbers below.

$$\frac{1}{2}, 0.65, 47\%, \frac{2}{3}, 0.53$$

Which answer choice shows the numbers in order from least to greatest?

- A.  $47\%, \frac{1}{2}, 0.53, 0.65, \frac{2}{3}$
- B.  $\frac{1}{2}, \frac{2}{3}, 0.53, 0.65, 47\%$
- C.  $\frac{1}{2}, \frac{2}{3}, 47\%, 0.53, 0.65$
- D.  $47\%, \frac{2}{3}, 0.65, \frac{1}{2}, 0.53,$

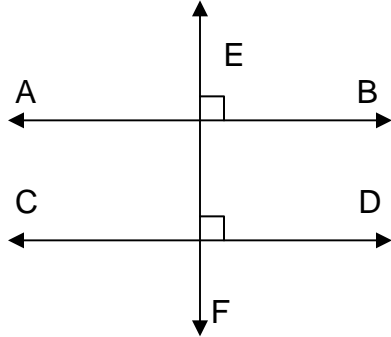
**7** What is 16.375 rounded to the hundredths place?

- A. 16.37
- B. 16.38
- C. 16.4
- D. 16.0

**8** The value of  $\sqrt{135}$  is between which two whole numbers?

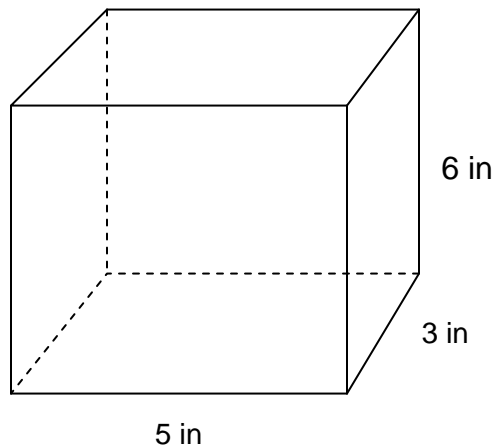
- A. 134 and 136
- B. 67 and 68
- C. 35 and 36
- D. 11 and 12

- 9 Lines  $\overline{AB}$ ,  $\overline{CD}$ , and  $\overline{EF}$  are shown below.



Which statement **must** be true about lines  $\overline{AB}$  and  $\overline{CD}$ ?

- A. The lines are perpendicular to each other.
  - B. The lines are congruent to each other.
  - C. The lines are parallel to each other.
  - D. The lines intersect forming acute angles.
- 10 Gary made a rectangular prism shaped box that is 5 inches by 3 inches by 6 inches, represented by the one below.



- A. Find the total surface area of the box Gary made. Show your work. Use the formula:  $S = 2(lw) + 2(hw) + 2(lh)$ .
- B. The height of the original box is 6 inches. Gary believes that multiplying the height by 2 will make a larger box that has a total surface area that is 2 times the total surface area of the original box. Is Gary correct? Explain why Gary is or is not correct.

## **DOK Math Coding and Annotations**

<b>Grade 5 Items</b>			
Item Number	Standard	DOK Level	Annotation
1	1.5.5	1	Recall of a math fact, asked in a non-traditional manner.
2	2.6.3	1	Straight translation of words to symbols of a simple expression, without having to generate the solution.
3	1.5.8	2	Decision point on calculations beyond the traditional algorithm.
4	2.4.1	2	Pattern question that asks for the extended set of the pattern beyond the next position.
<b>Grade 7 Items</b>			
5	2.7.2	1	Solve a simple algebraic equation with a given number for the variable.
6	1.7.3	2	Order a combination of rational numbers that are not common to the student.
7	1.7.6	1	Rounding to a given place value is only a level one even though estimation is usually Level 2.
<b>Grade 8 Items</b>			
8	1.8.7	1	Students know basic square roots (1.8.5) and can move between perfect squares.
9	4.8.6	2	Making generalizations about a figure and general properties associated with geometry.
10	3.8.3	3	Justification of a mathematical argument.

