



Standard	Items
MCC6.NS.3	15–16
MCC6.EE.1	8, 11–14, 18–19
MCC6.EE.2a	3, 6–7
MCC6.EE.2c	9, 20
MCC6.EE.4	2, 5, 10
MCC6.EE.6	3, 17
MCC6.EE.7	1, 4

TEST PREP DOCTOR

Selected Response: Item 8

- Students who answered **F** counted the number of times 7 was multiplied incorrectly.
- Students who answered **G** evaluated the expression rather than writing it in exponential form.
- Students who answered **H** confused the base and the exponent.

Selected Response: Item 9

- Students who answered **A** may have found the difference of $24 - 13$ without making any substitutions for x and y .
- Students who answered **B** may have substituted the values for variables in the expression correctly but miscalculated.
- Students who answered **C** may have found the sum of $24 + 13$ without making any substitutions for x and y .

Constructed Response: Item 18

- Students who answered **117,649** found 7^6 .

Name _____ Class _____ Date _____

SELECTED RESPONSE

- Lucinda is arranging 150 patio blocks to build a patio. Let p represent the number of patio blocks Lucinda arranged in one hour. Which equation describes the relationship between p and h , the total number of hours Lucinda needed to arrange all 150 patio blocks?

A. $h = 150 + p$ C. $h = 150p$
B. $h = \frac{150}{p}$ D. $h = 150 - p$
- Which expression is NOT equivalent to the expression $45 - 18$?

F. $3(15 - 6)$ H. $(5 - 2)9$
 G. 27 **J.** $9(5 - 18)$
- Erik made a model train that was 25 feet shorter in length than an actual train. Let m represent the length of Erik's model. Which expression represents the length of the actual train?

A. $25 - m$ **C.** $m + 25$
 B. $25m$ D. $m - 25$
- Last week Randy worked 42 hours in 5 days. Which equation could Randy use to find the average number of hours he worked each day?

F. $\frac{h}{5} = 42$ H. $\frac{h}{42} = 5$
G. $5h = 42$ J. $42h = 5$
- Which expression is equivalent to $3x - 4 + 2(2 + 4x)$?

A. $11x$ C. $9x$
 B. $11x - 8$ D. $9x - 8$
- Mark has been asked to find the value of $4(9 + 24) + 7$. What should he do first?

F. Add 4 and 7.
 G. Multiply 4 and 9.
 H. Multiply 4 and 24.
J. Add 9 and 24.
- The new county park has an area that is 3.5 times the area of the old park. Let p represent the area of the old park. Which expression represents the area of the new park?

A. $3.5p$ C. $p + 3.5$
 B. $p - 3.5$ D. $\frac{p}{3.5}$
- Write the expression $7 \times 7 \times 7 \times 7 \times 7$ in exponential form.

F. 7^4 H. 5^7
 G. 16,807 **J.** 7^5
- Evaluate the expression $24x - 13y$ for $x = 3$ and $y = 2$.

A. 11 C. 37
 B. 33 **D.** 46
- Which expression does **not** equal 15?

F. $3k$ for $k = 5$
 G. $3 + k$ for $k = 12$
H. $\frac{k}{3}$ for $k = 60$
 J. $k - 10$ for $k = 25$

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- What is $8 \cdot 8 \cdot 8 \cdot 8$ written in exponential form?

A. 32 C. 4,096
B. 8^4 D. 4^8
- Find the value of 3^5 .

F. 25 H. 81
 G. 125 **J.** 243
- Simplify $12 + 3(18 - 4^2) + 9$.

A. 39 **C.** 27
 B. 217 D. 59
- Simplify $(25 + 20) \div 5 + 2^2$.

F. 13 H. 33
 G. 5 J. 121
- Which is an example of the Distributive Property?

A. $7(34) = 7(3) + 7(4)$
 B. $7 + (3 + 4) = (7 + 3) + 4$
C. $7(34) = 7(30) + 7(4)$
 D. $7 + (3 + 4) = 7 + (4 + 3)$
- $(18 + 13) + 7 = 18 + (13 + 7)$ is an example of which property?

F. Commutative
G. Associative
 H. Distributive
 J. Identity
- Layne sends an email to 7 people and those 7 people send the email to 7 more people, and so on. Write an expression to show the number of people who will receive the email after the fifth round.

7^5 , or 16,807
- Consider the expression: $(28 \div 4) \cdot 5 - 6 + 4^2$.
 Explain the order of operations you would use to simplify this expression. Then simplify it.

Perform the operation within the parentheses: $(28 \div 4)$. $28 \div 4 = 7$
Find the value of the number with the exponent: 4^2 . $4^2 = 16$
Multiply the result of $(28 \div 4)$ by 5. $7 \cdot 5 = 35$
Subtract 6 from the result of $(28 \div 4) \cdot 5$. $35 - 6 = 29$
Add the result of 4^2 to the result of $(28 \div 4) \cdot 5 - 6$. $29 + 16 = 45$
- The table shows the time Sue spent tutoring two of her students and how much she was paid.

Sue's Tutoring		
	Hours	Pay
Will	3	\$27
Hector	8	\$72

Write an expression to show how much Sue will earn in h hours. How many hours must Sue tutor to earn \$45? Justify your answer.
 $9h$; 5 hours; when $h = 5$, the expression is $9h = 9(5) = \$45$.

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