**Unit #2**

**Study Guide**

Grade Six

## Overview of Unit

***How to videos:***

**Learn Zillion Videos/Lessons http://tinyurl.com/mdspoos**

[**Khan Academy Videos/Tutorials**](https://www.khanacademy.org/commoncore/map)

**http://tinyurl.com/p2483su**

***Links for online practice:***

**Online Practice http://tinyurl.com/mo3mvyt**

[**Online Practice**](http://www.ixl.com/math/grade-6)

**http://tinyurl.com/mo3mvyt**

[**Online Quiz**](http://www.free-test-online.com/ccss/grade6/grade6_equations.html)

**http://tinyurl.com/poz8exb**

[**Math Games**](http://www.mathplayground.com/common_core_state_standards_for_mathematics_grade_6.html)

**http://tinyurl.com/poz8exb**

In the coming weeks you will be assessed on Unit 2 of our mathematics curriculum. We developed this guide to help you to prepare for the assessment. This study guide includes the major content standards addressed in the unit.

The Unit 2 Assessment will be given the week of:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Sincerely,

The 6th Grade Teachers

# Dear Students,

**Expressions**

In this unit, students will read, write, and evaluate numeric

and algebraic expressions. They will identify terms of expressions,

use properties to find common factors and multiples, and apply

number properties when creating equivalent expressions.

**Standards and Using Online Resources**

In order to use online practice tutorials and sites, you will have to enter the standard. In this unit you will be learning standards: **6.EE.1, 6.EE.2, 6.EE.3, 6.EE.4**

For More information about the Common Core Standards, go to:

 <http://www.corestandards.org> and <http://curriculum.northsmithfieldschools.com>

# Unit 2 Study Guide

**Write and evaluate numerical expressions involving whole-number exponents. 6.EE.1**

[**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=EE%3A+Expressions+and+Equations&filters%5Bstandard%5D=6.EE.1%3A+Write+and+evaluate+numerical+expressi...)[**Click Here for More Practice With This Standard**](https://www.khanacademy.org/math/arithmetic/exponents-radicals/world-of-exponents/e/exponents_1)

[**http://tinyurl.com/mdspoos**](http://tinyurl.com/mdspoos)<http://tinyurl.com/n3nkduk>

1. Use what you know about order of operations and integers to find the solution:

**3 + 2⁴ - 4 ÷ 2**

Describe the method you used to solve the expression.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. What is the value of 5 2 – 2 2 ? \_\_\_\_\_\_\_\_\_\_\_\_\_

[Printable Practice 6.EE.1](http://www.mathworksheetsland.com/6/20evalnumexpr/ip.pdf)

<http://tinyurl.com/mwwgbul>

# Unit 2 Study Guide

**Write, read, and evaluate expressions in which letters stand for numbers. 6.EE.2**

[**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=EE%3A+Expressions+and+Equations&filters%5Bstandard%5D=6.EE.2%3A+Write%2C+read%2C+and+evaluate+expressions...)[**Click Here for More Practice With This Standard**](https://www.khanacademy.org/math/algebra/introduction-to-algebra/variable-and-expressions/e/evaluating-expressions-3)

[**http://tinyurl.com/l52mxxe**](http://tinyurl.com/l52mxxe)[**http://tinyurl.com/lwe5bf2**](http://tinyurl.com/lwe5bf2)

1. Part A: List the terms in the expression below.

 4x + 3y + 7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Part B: List the coefficients in the expression.

 5a + 12 b 2 + c \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which expression in NOT equivalent to (s+s+s+s) + (1+1+1+1)?
	1. 4 (s + 1)
	2. 2s + 2s + 2 + 2
	3. 4s + 1
	4. 2s + 2 (s+2)

[Printable Practice 6.EE.2](http://www.mathworksheetsland.com/6/21evalexp/ip.pdf)

<http://tinyurl.com/opwql4x>

# Unit 2 Study Guide

**Apply the properties of operations to generate equivalent expressions. 6.EE.3**

[**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=EE%3A+Expressions+and+Equations&filters%5Bstandard%5D=6.EE.3%3A+Apply+the+properties+of+operations+to...)[**Click Here for More Practice With This Standard**](https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-expressions-and-variables/cc-6th-equivalent-expressions/e/equivalent-forms-of-expressions-1)

<http://tinyurl.com/njam5d8> <http://tinyurl.com/o9z8l3h>

Simplify each expression:

5. 4(15 + 3) 6. 16 + 24 = 8 (\_\_\_\_ + \_\_\_\_\_)

7. 5(4c – 7) 8. (36c – 12) = \_\_\_\_ (3c – 1)

Solve:

1. You have six gummy worms and eleven sticks of gum. Your friend is going to double the amount of the candies because you helped her babysit her brother last Friday. Write an expression for this scenario. Simplify the expression to determine how many gummy worms and sticks of gum you will now have altogether?
2. Lunden was collecting rocks for her science project. She found 3 examples of limestone, 4 of shale, and 1 example of sandstone on her nature hike. Lily found 3 times what Lunden found. Write an expression showing how many of each rock Lily found.

# Unit 2 Study Guide

[Printable Practice 6.EE.3](http://www.mathworksheetsland.com/6/25opsequal/ip.pdf)

<http://tinyurl.com/pavk7rc>

**Identify when two expressions are equivalent. 6.EE.4**

[**Watch a How-To Video**](http://learnzillion.com/lessons?utf8=%E2%9C%93&filters%5Bsubject%5D=math&query=&filters%5Bgrade%5D%5B%5D=6&filters%5Bdomain%5D=EE%3A+Expressions+and+Equations&filters%5Bstandard%5D=6.EE.4%3A+Identify+when+two+expressions+are+equ...)[**Click Here for More Practice With This Standard**](http://www.mathworksheetsland.com/6/26equalexp/ip.pdf)

[**http://tinyurl.com/othc4om**](http://tinyurl.com/othc4om)[**http://tinyurl.com/n3otr3n**](http://tinyurl.com/n3otr3n)

Simplify and solve

12.

11.

|  |  |
| --- | --- |
| 4n + n + 3n = 14.13.6n x 3n =  | 50m ÷ 10m =   7(10m) =  |

15. Write an expression with 4 variables to calculate the perimeter of a rectangle.



\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_

Simplify by combining like terms.

 \_\_\_\_\_\_\_\_+ \_\_\_\_\_\_\_\_

Simplify by using distributive property.

\_\_\_\_\_\_\_\_ (\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_ )

[Printable Practice 6.EE.4](http://www.mathworksheetsland.com/6/grade6-26-2-5pack.pdf)

<http://tinyurl.com/knzqcgh>

Answer Key:

1. 17
2. 21
	1. 4x, 3y, 7
	2. 5, 12, 1
3. C 4s+1
4. 60 + 12
5. 2 and 3 8(2+3)
6. 20c – 35
7. 12 12 (3c – 1)
8. Expression: 2 (6+11) or 2(6) + 2 (11)

Answer: 34

1. 3 x 3 = 9 limestone

3 x 4 = 12 shale

3 x 1 = 3 sandstone

1. 8n
2. 5
3. 18n2
4. 70m
5. L + L + W + W

2L + 2W

2 (L + W)