

Expressions Self-Test  
SOL's covered: A.1, A.4b

Name

- 1) Define the following terms. (On the test it will be matching.)

A. Base	B. Coefficient	C. Element	D. Null Set
E. Exponent	F. Like Terms	G. Power	H. Set
I. Simplest Form	J. Solution	K. Term	L. Variable
  
- 2) Know the following properties. (On the test it will be matching.)

A. Reflexive	B. Symmetric	C. Transitive
D. Additive Inverse	E. Multiplicative Inverse	F. Additive Identity
G. Multiplicative Identity	H. Commutative	I. Associative
J. Distributive		
  
- 3) State the order of operations.
  
- 4) Write an algebraic expression for the verbal expression: the sum of  $a$  and  $b$ .
  
- 5) Write 3 different words that mean a) addition, b) subtraction, c) multiplication, and d) division.
  
- 6) Write a verbal expression for the algebraic expression:  $x + 4$ .
  
- 7) Write the expression using exponents:  $7 \cdot a \cdot a \cdot b \cdot b \cdot b$ .
  
- 8) Evaluate the expression if  $a = 5$ ,  $b = 8$ , and  $c = 0.5$ :  $a^2bc$ .
  
- 9) Solve the equation:  $m = 13 - 3 \cdot 2^3$ .
  
- 10) Simplify:  $x + 3x$ .
  
- 11) Simplify:  $3(a + 1) + 2a$ .
  
- 12) Write an equation: twice  $x$  increased by the cube of  $y$  equals  $z$ .
  
- 13) Evaluate  $(6 - 4) \div 2 + 8 \div (4 - 2) + 1$ 

a) 1.5	b) 8	c) 6	d) 3	e) None of these
--------	------	------	------	------------------

14) Write an expression for: the sum of a number  $N$  and 3.

- a)  $N - 3$       b)  $3 - N$       c)  $N + 3$       d)  $3N$       e) None of these

15)  $5 \cdot 5 \cdot 5$  means

- a)  $3^5$       b)  $5^3$       c) 15      d)  $15^3$       e) None of these

16) Evaluate  $2x^3 + y^2$  for  $x = 3$  and  $y = 2$ .

- a) 22      b) 58      c) 168      d) 108      e) 54