

Unit 1: Introductory Lesson 1 – Variables and Expressions

Example 4: Complete the table below.

Word Phrase	Variable Expression
Nine <i>more than</i> a number y	$y + 9$
4 <i>less than</i> a number n	
A number z <i>times</i> three	
A number a <i>divided by</i> 12	
5 <i>times the quantity</i> 4 <i>plus</i> a number c	

Example 5: Write a variable expression for each word phrase.

- a) 16 more than m _____
- b) the product of c and 3 _____
- c) b times 8 _____
- d) x less than 2 _____
- e) 4 more than the quotient of g and 6 _____
- f) 10 less than the quotient of a number c and 13 _____
- g) 9 less than 18 times a number x _____
- h) 6 times the sum of a number q and 9 _____
- i) one fifth of the sum of 10 and a number q _____
- j) 12 times the quotient of a number g and 43 _____
- k) 6 less than the product of t and 7 _____

Example 6: Write a variable expression to represent the situation.

- a) number of hours in m minutes _____
- b) cost of p pens priced at \$0.29 each _____

Algebraic Expressions Worksheet 1Name _____
Period _____**Express each phrase as an algebraic expression.**

- (1) 6 less than a number k multiplied by 25
- (2) 12 times the sum of a number v and 41
- (3) 4 more than the difference of 12 and a number j
- (4) 7 less than the product of 30 and a number r
- (5) half the quotient of 4 and a number y
- (6) 8 plus 43 less than a number w
- (7) 3 less than the difference of 15 and a number u
- (8) the difference of 36 and a number h
- (9) sum of 23 and a number x
- (10) 4 more than the quotient of 24 and a number m
- (11) 5 plus the product of 39 and a number e
- (12) 8 times the sum of a number z and 3
- (13) 7 plus a number d less than 37
- (14) 11 times the sum of a number z and 3
- (15) 3 less than the product of a number g and 49
- (16) 11 times the product of 19 and a number g
- (17) a fifth of the sum of number a and 34
- (18) 9 more than the quotient of 14 and a number n

Algebraic Expressions Worksheet 2

Name _____

Period _____

Express each phrase as an algebraic expression.

- (1) 8 less than 25 multiplied by a number q
- (2) 7 more than the quotient of 26 and a number d
- (3) 3 more than the difference of 20 and a number m
- (4) A number x plus 45
- (5) A fifth of the product of a number x and 8
- (6) 9 more than a number w
- (7) 4 times the sum of 41 and a number h
- (8) 5 less than the quotient of a number u and 15
- (9) 7 less than the difference of 22 and a number e
- (10) 5 times the sum of a number u and 15
- (11) 3 plus the product of 35 and y
- (12) 3 plus 27 less than a number q
- (13) 7 times the product of a number c and 7
- (14) 6 more than the quotient of a number d and 12
- (15) 8 plus a number y increased by 38
- (16) 4 more the quotient of a number d and 12
- (17) Add a number j to 33
- (18) 11 less than the difference of 19 and a number k
- (19) 8 times the product of 28 and a number g
- (20) 11 less than 43 times a number r

- (21) Difference of a number n and 17
- (22) 3 plus the product of 37 and a number p
- (23) 11 less than the sum of a number v and 23
- (24) Half the product of a number t and 48
- (25) 11 more than the difference of a number f and 18
- (26) 2 more than the quotient of a number b and 6
- (27) a fourth of the difference of 10 and a number a
- (28) 4 less than the sum of 29 and a number u
- (29) 10 plus 5 times the number x
- (30) 3 times the quotient of 39 and a number n
- (31) 10 less than a number j multiplied by 44
- (32) 2 plus 40 more than a number x
- (33) 13 times a number p
- (34) 11 less than the product of 47 and a number e
- (35) 4 times the sum of a number f and 46
- (36) The product of 4 and a number g

Algebraic Expressions Worksheet 3Name _____
Period _____**Express each phrase as an algebraic expression.**

- (1) 5 less than the difference of a number f and 35
- (2) 6 less than the quotient of 2 and a number f
- (3) The quotient of a number p and 38
- (4) 4 more than the difference of a number x and 10
- (5) 9 plus the product of 47 and a number c
- (6) The product of 44 and a number y
- (7) 40 divided by a number c
- (8) 10 plus 21 increased by a number k
- (9) 11 times the product of 31 and a number p
- (10) 3 more than the sum of 32 and a number d
- (11) 11 less than 5 times a number g
- (12) 5 less than the quotient of a number e and 33
- (13) 10 plus the product of 48 and a number x
- (14) Subtract a number m from 45
- (15) 9 less than the sum of a number u and 20
- (16) One-third of the product of 13 and a number n
- (17) 10 more than the difference of a number h and 27
- (18) 7 times the difference of 17 and a number b