


Name: _____ Class: _____ Date: _____

Worksheet 7

Writing and Evaluating Algebraic Expressions

1  made these arrangements of some square tables and round stools.




(a) Complete the table.

Arrangement number	Number of tables, t	Number of stools, s
1	1	4
2	2	6
3	3	
4	4	
6	6	

(b) Write an expression for the number of stools s in terms of the number of tables t .

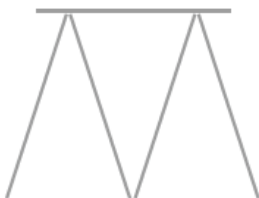
$s =$

(c) Use your expression to find the value of s when $t = 12$.

- 2  stacked playing cards to make these arrangements (side view shown).



Arrangement 1



Arrangement 2



Arrangement 3

- (a) Complete the table.

Arrangement number, n	Number of playing cards, c
1	2
2	5
3	
5	
7	

- (b) Write an algebraic expression for the number of playing cards c in terms of the arrangement number n .

- (c) Evaluate your expression when $n = 11$.

Check that this answer is equal to the number of cards in Arrangement 11.



- 3** Evaluate each expression for the given values of n . In each case, write a formula for T in terms of n .

(a)

n	$4n + 1$
1	
2	
3	
4	
5	

(b)

n	$2n - 2$
2	
4	
6	
8	
10	

(c)

n	$3n + 5$
1	
2	
10	
20	
99	