

Rachel's Problems

1. Rachel is exploring function machines. N represents the input and S the output. Help Rachel complete each of the tables.

A.

$S = 4 + N \times 3$	
N Input Number	S Output Number
1	7
2	
3	
4	
10	
50	

B.

$S = 24 \div N \times 3$	
N Input Number	S Output Number
1	72
2	
3	
4	
6	
8	

C.

$S = (2 + N)^2 \times 3$	
N Input Number	S Output Number
1	27
2	
3	
4	
6	
12	

2. Write the following numbers as products of primes using exponents.

A. 126

B. 360

C. Write the calculator keystrokes you used to check your answer in Question 2B.

Rachel's Problems Feedback Box	Expectation	Check In	Comments
Use variables in formulas to represent number patterns and make predictions. [Q# 1]	E4		
Find the prime factorization of a number. [Q# 2]	E6		
Use order of operations to make calculations that involve exponents and the use of parentheses. [Q# 1]	E7		