

Date Completed: \_\_\_\_\_

Mentor Initials: \_\_\_\_\_

A mentor can change everything.



## Patterns

1. Given today is Wednesday, what day of the week will it be 300 days from now?  
A. Monday  
B. Tuesday  
C. Thursday  
D. Friday  
E. Saturday
2. The fraction  $\frac{4}{7}$  is equivalent to  $0.\overline{428571}$ . What is the digit in the 501<sup>st</sup> decimal place of  $0.\overline{428571}$  ?  
(Note: The digit in the 5<sup>th</sup> decimal place of  $0.\overline{428571}$  is 7.)  
A. 1  
B. 2  
C. 4  
D. 7  
E. 8
3. When  $7^{134}$  is multiplied out, what is the digit in the ones place?  
A. 1  
B. 2  
C. 3  
D. 7  
E. 9
4. What is the 276<sup>th</sup> digit after the decimal point in the repeating decimal  $0.\overline{2835}$  ?  
A. 0  
B. 2  
C. 8  
D. 3  
E. 5
5. The digit in the ones place of  $2^{75}$  is 8. What is the digit in the ones place of  $2^{77}$ ?  
A. 0  
B. 2  
C. 4  
D. 6  
E. 8