Precalculus Practice S.CP.B.9: Permutations 1

NAME:_____

1. Find: $_4P_2$

   [A] 8   [B] 12   [C] 24   [D] 6

2. Find: $_5P_4$

   [A] 120   [B] 9   [C] 240   [D] 20

3. Find: $_6P_5$

   [A] 30   [B] 720   [C] 11   [D] 1440

4. Use a calculator to evaluate $_7P_4$.

5. Use a graphing calculator to determine $_{15}P_8$.

6. For $r = 4$ and $_nP_r = 360$, what is the value of n?

   [A] 90   [B] 6   [C] 2   [D] 4   [E] 3

7. If no digits can be used more than once, how many 2-digit numbers can be formed using only the digits 9, 1, 5, and 6?

   [A] 9   [B] 10   [C] 6   [D] 12

8. If no digits can be used more than once, how many 3-digit numbers can be formed using only the digits 5, 8, 2, 9, and 1?

   [A] 57   [B] 58   [C] 60   [D] 30

9. If no digits can be used more than once, how many 5-digit numbers can be formed using only the digits 2, 6, 9, 4, 3, and 0?

   [A] 720   [B] 360   [C] 718   [D] 723

10. What is the numerical probability that 5 digits chosen from the digits 1-5 will be chosen in numerical order?

[1] B

[2] A

[3] B

[4] 840

[5] 259,459,200

[6] B

[7] D

[8] C

[9] A

[10] $\dfrac{1}{120}$