



Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

✓ Compute permutations $P(n,r)$. ✓ Compute combinations $C(n,r)$. ✓ Compute factorials. ✓ Know that $0! = 1$.

Section A · Concept Check

• BEGINNER

 $4 \times 1 = 4$ _____

1 $P(6,3) = ?$

☐ A. 120 ☐ B. 20 ☐ C. 720 ☐ D. 216

2 $C(6,3) = ?$

☐ A. 20 ☐ B. 120 ☐ C. 720 ☐ D. 18

3 $6! = ?$

☐ A. 720 ☐ B. 36 ☐ C. 120 ☐ D. 6

4 $0! = ?$

☐ A. 1 ☐ B. 0 ☐ C. undefined ☐ D. 6

Section B · Problem Solving

• INTERMEDIATE

 $2 + 3 \times 3 = 11$ _____

5 Permutations count arrangements where order _____.

6 Combinations count selections where order does _____ matter.

7 Find $P(6,3)$.

8 Find $C(6,3)$.

9 Find $6!$.



Section C · Challenge

• CHALLENGE

5 _____

10 Find $0!$.

🧠 Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 Total ___/20

Teacher's Signature _____

Parent's Signature _____

⌘ ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-A 3-A 4-A | 5 matters 6 not 7 = 120 8 = 20 9 = 720 | 10 = 1