



Math on the Fly!



NAME: _____ DATE: _____

Factorials, Combinations and Permutations

Find the answer to each problem below.

1. $\frac{10!}{9!} \cdot 4!$

2. $\frac{11!}{8! \cdot 3!}$

3. $\frac{30! \cdot 45!}{43! \cdot 29!}$

4. $\frac{100!}{98!} - 9900$

5. ${}_7P_2$

6. ${}_6C_4$

7. ${}_{13}C_{13}$

8. ${}_5P_5$

9. ${}_{25}P_3$

10. ${}_{25}C_3$

11. ${}_{20}C_4 - {}_8P_4$

12. ${}_{48}P_0 + {}_{57}C_0$

13. ${}_9C_1 \cdot {}_{10}P_2$

14. ${}_{10}C_2 \cdot {}_9P_1$

SOLUTIONS

1. 240

2. 165

3. 59,400

4. 0

5. 42

6. 15

7. 1

8. 120

9. 13,800

10. 2,300

11. 3,165

12. 2

13. 810

14. 405