

Names : _____ / _____ / _____ .

Chapter 1 Elementary Calculations

Complete each of the following exercises using your brain & pencil (B&P), your TI-86 (SGC), and MAPLE (CAS). In each case record your answers in the appropriate place.

	<u>B&P</u>	<u>SGC</u>	<u>MAPLE</u>	<u>Comments (good place to notes on syntax)</u>
include				
1. $2 + 6$				
2. $2(6 + 5)$				
3. $(1+5)^2 + 2$				
4. $(13 - 3)/7$				
5. $(8^2 - 3^3)(5 - 22)/(8 - 4^2)$				
6. $\frac{27!}{10!7!}$				

! stands for factorial and is in the TI-86 CATALOG. You should place it into your custom catalog. This expression is the number of combinations of 27 objects choosing 10 at a time. It is also called the **binomial coefficient**. Do you know why?

8. ${}^{27}nCr\ 10$ (from TI-85 CATALOG)

9. b				

10. $100 \text{ nCr } 50$

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11. $\text{binomial}(100,50);$

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12. $2 + 1/3 + 1/4 + 2/5$

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13. $(2/3)(6/7)$

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14. $(2/3)/(6/7)$

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15. $(\sqrt{2})/3$ (sqrt(); from MAPLE)

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16. $\sqrt{1/8}$

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17. $5^{1/3}$

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Exercise: For the above problems as indicated below use the **>Frac** command from the TI-86 CATALOG to see if you can make the TI-86 answers agree with the MAPLE answers. Use the command **evalf** from MAPLE to see if you can make the MAPLE answers look like the TI-86 answers. Explain why you can not do this in

those instances when it doesn't seem to work.

4.

5.

6.

12.

13.

14.

15.

16.

17.

Reflection: Look back over the above exercises. What are the main points that the author wants you to observe?