Section 3.3 Exercises Part B

Simplify the following.

1. $(3m^2)^3(2m^2)^3$

2. $(x^7x^{11})^3$

3. $\frac{5f^{12}g^{-4}}{f^5g^7}$

4. $t^8m^5t^5m^3$

5. 2^{-4}

6. $3x^7\,(4x^2 - 5x + 3)$

7. $\frac{12x^3z^{-5}}{3x^{-4}z^3}$

8. $\left(\frac{17x^5}{23y^{19}}\right)^0$

9. $(5p^{-5}g^8)^{-2}$

10. $\left[\frac{28c^{-7}d^3}{21c^5d^{-7}}\right]^{-2}$

11. $\left[\frac{15c^{-7}d^3}{35c^5d^7}\right]^{-3}$

12. $5x^2\,(4x^7 - 7x^6 + 5x^{-5})$

13. Why doesn't a negative exponent make the answer negative?

Using your calculator and the Savings Plan formulas, fill out the table for a savings account.

14. Simple n = 1	**15. Quarterly** n = 4	**16. Monthly** n = 12	**17. Daily** n = 365
P = 200 **r** = 8% **Y** = 15 **A** =	**P** = 200 **r** = 8% **Y** = 15 **A** =	**P** = 200 **r** = 8% **Y** = 15 **A** =	**P** = 200 **r** = 8% **Y** = 15 **A** =

Using your calculator and the Savings Plan formulas, fill out the table for a savings account.

18. Simple n = 1	**19. Quarterly** n = 4	**20. Monthly** n = 12	**21. Daily** n = 365
P = 300 **r** = 7% **Y** = 15 **A** =	**P** = 300 **r** = 7% **Y** = 15 **A** =	**P** = 300 **r** = 7% **Y** = 15 **A** =	**P** = 300 **r** = 7% **Y** = 15 **A** =

Using a spreadsheet and the Future Value (FV) formula, fill out the table for a savings account. Put your results in a spreadsheet called "Savings and Loan Practice."

22. Simple n = 1	**23. Quarterly** n = 4	**24. Monthly** n = 12	**25. Daily** n = 365
P = 200 **r** = 7% **Y** = 15 **A** =	**P** = 200 **r** = 7% **Y** = 15 **A** =	**P** = 200 **r** = 7% **Y** = 15 **A** =	**P** = 200 **r** = 7% **Y** = 15 **A** =

Using a spreadsheet and the Future Value (FV) formula, fill out the table for a savings account. Put your results in a spreadsheet called "Savings and Loan Practice."

26. Simple n = 1	**27. Quarterly** n = 4	**28. Monthly** n = 12	**29. Daily** n = 365
P = 300 **r** = 8% **Y** = 15 **A** =	**P** = 300 **r** = 8% **Y** = 15 **A** =	**P** = 300 **r** = 8% **Y** = 15 **A** =	**P** = 300 **r** = 8% **Y** = 15 **A** =

Using your calculator, find the monthly (n = 12) payment for the following loans.

30.	**31.**	**32.**	**33.**
P = 300 **r** = 8% **Y** = 2 **PMT** =	**P** = 3000 **r** = 9% **Y** = 5 **PMT** =	**P** = 1500 **r** = 15% **Y** = 12 **PMT**=	**P** = 23,000 **r** = 8% **Y** = 30 **PMT** =

Using a spreadsheet and the Payment (PMT) formula, find the monthly (n = 12) payment for the following loans. Put your results in a spreadsheet called "Savings and Loan Practice."

34.	**35.**	**36.**	**37.**
P = 300 **r** = 8% **Y** = 2 **PMT** =	**P** = 3000 **r** = 9% **Y** = 5 **PMT** =	**P** = 1500 **r** = 15% **Y** = 12 **PMT**=	**P** = 23,000 **r** = 8% **Y** = 30 **PMT** =

Using a spreadsheet and the Payment (PMT) formula, find the monthly (n = 12) payment for the following loans. Put your results in a spreadsheet called "Savings and Loan Practice."

38.	**39.**	**40.**	**41.**
P = 500 **r** = 4% **Y** = 2 **PMT** =	**P** = 4800 **r** = 9% **Y** = 5 **PMT** =	**P** = 2500 **r** = 15% **Y** = 12 **PMT**=	**P** = 23,000 **r** = 8% **Y** = 20 **PMT** =

42. Ensure that every member of the group is able to put in the formulas and use the spreadsheet to do the calculations.

Answers:

1. $216m^{12}$

2. x^{54}

3. $\frac{5f^7}{g^{11}}$

4. $t^{13}m^8$

5. $\frac{1}{16}$

6. $12x^9 - 15x^8 + 9x^7$

7. $\frac{4x^7}{z^8}$

8. 1

9. $\frac{p^{10}}{25g^{16}}$

10. $\frac{9c^{24}}{16d^{20}}$

11. $\frac{343c^{36}d^{12}}{125}$

12. $20x^9 - 35x^8 + 25x^{-3}$

13. Negative exponents mean division

14. 634.43

15. 656.21

16. 661.38

17. 663.94

18. 827.71

19. 849.54

20. 854.68

21. 857.21

22. 551.81

23. 566.36

24. 569.79

25. 571.47

26. 951.65

27. 984.31

28. 992.08

29. 995.90

30. 13.57

31. 62.28

32. 22.51

33. 168.77

34. 13.57

35. 62.28

36. 22.51

37. 168.77

38. 21.71

39. 99.64

40. 37.52

41. 192.38

42. Complete only when everyone understands and can enter the formulas on their own.