

Holiday Algebra

Many Christmas songs have lyrics in which a word or phrase is repeated. Several repetitive lyrics have been extracted from a number of holiday favorites. Each algebraic expression below represents a song, where each word is represented by its first letter and exponents show the number of repetitions. If two or more words are repeated as a group, they appear in parentheses. For example, $(JB)^2$ is short for "Jingle Bells, Jingle Bells."

Can you identify all the songs below?

1. $(JB)^3R$
2. $P(RP^3)^3$
3. FL^8
4. $(SIHP)^2$
5. N^4
6. $(WWYAMC)^3$
7. $(OCT)^2$
8. $OTO(CAJ)^2OTOC AJ$
9. $(GIED)^2$
10. $(OCLUAH)^2$
11. $(H^3WWG)^2$
12. $(LIS)^3$
13. $(FN)^3$
14. $(SB)^2$
15. $(HCSC)^2$
16. $(RTSJ)^2 R^2TSJ$
17. $(OC)^2E$

Extra Credit: A^{61}

Answer is found at: <http://www.pleacher.com/mp/probweek/p2005/a121905.html>