

Name: _____

Show work needed to justify your answer.

Date: _____

HW # 43: Algebra 1 - Standard 27 - Multiplication Properties of Exponents

5 points

Simplify each expression.

1. $(q^2)(2q^4)$

$$2q^6$$

2. $(-2u^2)(6u^6)$

$$-12u^8$$

3. $(9w^2x^8)(w^6x^4)$

$$9w^8x^{12}$$

4. $(y^6z^9)(6y^4z^2)$

$$6y^{10}z^{11}$$

5. $(b^8c^6d^5)(7b^6c^2d)$

$$7b^{14}c^8d^6$$

6. $(14fg^2h^2)(3f^4g^2h^2)$

$$42f^5g^4h^4$$

7. $(j^5k^7)^4$

$$j^{20}k^{28}$$

8. $(n^3p)^4$

$$n^{12}p^4$$

10. $[(3^2)^2]^4$

$$3^{16}$$

11. $[(4r^2t)^3]^2$

$$(64r^6t^3)^2$$
$$4096r^{12}t^6$$

13. $(y^2z)(yz^2)$

$$y^3z^3$$

15. $(-5m^3)(3m^8)$

$$-15m^{11}$$

16. $(-2c^4d)(-4cd)$

$$8c^5d^2$$

17. $(3pr^2)^2$

$$9p^2r^4$$

18. $(2b^3c^4)^2$

$$4b^6c^8$$