Algebra 1
Quiz Review Sections 7.1 & 7.2

Name: Key

For numbers 1 – 9, evaluate the expression.

1. $x^8 \cdot x^3$

x^{11}

2. $(y^4)^2$

y^8

3. $(x \cdot y)^2$

x^2y^2

4. $(2a)^5$

$(2)^5a^5$

5. $(5b)^2 \cdot b$

$(5)^2b^3$

6. $2y^4 \cdot 4y^2 \cdot 3y^{12}$

$24y^{18}$

7. $(-2x)^2$

$(-2)^2x^2$

8. $-(3y^5)^2$

$-(3)^2y^{10}$

9. $(-6^2)^3$

$(-6)^6$

In numbers 10 - 15, evaluate the exponential expression. Write your answer as a fraction in simplest form.

10. 3^{-4}

$\frac{1}{3^4}$

11. $\left(\frac{2}{5}\right)^{-1}$

$\frac{5}{2}$

12. $\left(\frac{1}{5}\right)^{-3}$

$\frac{(5)^3}{(1)^3}$

13. $(-100)^0 \cdot \frac{1}{6^{-2}}$

6^2

14. $(2^{-3})^{-2}$

$(2)^6$

15. $5^4 \cdot 5^{-4}$

$5^0 = (1)$

In numbers 16 -18, rewrite the expression with positive exponents.

16. x^{-4}

$\frac{1}{x^4}$

17. $y^{-4}z^5$

$\frac{z^5}{y^4}$

18. $(7xy)^{-3}$

$\frac{1}{7^3x^3y^3}$

For numbers 19-21, simplify and then evaluate if x = 1 and y = 2.

19. x^2y^2

$(1)^2(2)^2$

(4)

20. $(3x)^2y$

$(3[1])^2(2)$

$9(2)$

(18)

21. $(xy^2)^3$

x^3y^6

$(1)^3(2)^6$

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