

3.25.19 Classwork Name: _____ Period: _____

Write the actual value of each power shown below. A couple are already done for you.

10^0	10^1	10^2	10^3	10^4	10^5	10^6
1			1,000			

Write the actual value of each power shown below. A couple are already done for you.

10^0	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}	10^{-6}
1			$\frac{1}{1000}$		$\frac{1}{100000}$	

POWERS of 10				POWERS of 2	
Words	Number (as decimals)	Number (as Fractions)	Number (with Powers)	Number	Number (with Powers)
a.	1,000,000			64	
b.	100,000	$\frac{100,000}{1}$		32	
c.				16	
d.		$\frac{1,000}{1}$		8	
e. One hundred	100		10^2		2^2
f.	10	$\frac{10}{1}$	10^1		
g.	1			1	
h.	.1	$\frac{1}{10}$	$\frac{1}{10^1}$ or 10^{-1}		
i.		$\frac{1}{100}$			
j.	.001				
k. One ten thousandth					
l.		$\frac{1}{100,000}$			
m.					

Simplify each expression as indicated.

1. $x^3 \cdot x^5$

2. $a^{15} \cdot a^{11}$

3. $3y^8 \cdot 2y^2$

4. $5j^4(-9j^5)$

5. $(x^5)^2$

6. $(a^3)^6$

7. $(h^4)^3$

8. $[(k^5)^2]^3$

9. $(xy)^7$

10. $(4gz)^2$

11. $(-2awy)^3$

12. $-3(km)^4$

13. $\frac{d^8}{d^4}$

14. $\frac{t^9}{t^3}$

15. $\frac{a^5b^3}{a^2d}$

16. $\frac{x^3y^2z}{x^2y^2}$