College Algebra

Objective: Use the properties of exponents to

interpret expressions for exponential functions.

Bellwork: Write the following definition in your

notebook:

The exponential function f with base a is denoted by

f(x)=ax where a>0, , x is any real number.

Calculator Assignment: Solve the following problems on your calculator.

1. f(x) = 2x, x= -3.1 f(-3.1)=

2. f(x)= 2-x, x= Pi f(Pi)=

(Two raised to minus x)

3. f(x)= 6x, x=3/2 f(3/2)=

Lesson: Properties of Exponents



9)|a2|=a2 10) –a2=-a\*a 11) (-a)2=-a\*-a=a2

Practice:

1. 32\*34=36=729 2. 37/34=33=27

3. 2-4=1/(24)=1/16. 4. (22+1)0=1

5. (5x)3=53x3=125x3. 6. (y3)-4=y-12

 Distribute the 3

7. (2/x)3= 23/x3=8/x3 8. |(-2)2|=4

 Distribute the 3

9. -22=-4. 10. (-2)2=4

Exponential Quiz Name Period

1. (-5)2=

2. -52=

3. 2\*24=

4. 4/46=

Evaluate/Simplify

1. 5x-2 @ x=3 5(3)-2=5/9 minus means 1/

2. (1/3)(-x)3=(1/3)(-3)3=-9. (-3)3=-3\*-3\*-3

3. (-3ab4)(4ab-3)=(-12a2b) simplify like terms

4. (2xy2)3=8x3y6 distribute the 3

5. 3a(-4a2)0= anything to the zero is one

6. (5x3/y)2=25x6/y2 distribute the 2.

Practice: Rewrite with Positive Exponents

Negative Exponent means 1/ or it can mean flip

1. x-1=1/x

2. 1/(3x-2)=(1/3)x2=x2/3

3. (12a3b-4)/(4a-2)b=3a5/b5

4. (3x2/y)-2= (y/3x2)2=y2/9x4

Practice: Complete rules for exponents and turn in.

Homework: Book page A24 12-38 even.

Closure: Look at the rules and write again those you

can’t remember. Read and Take Notes on Section 3.1.