**Name:** _____ **Date:** _____ **HW #83 Id Exponentials**

**Tell which family each equation or table belongs to. Your choices are:**

**Constant, linear, absolute value, quadratic, or exponential.**

1) $f(x)=3x^2-1$ quadratic

2) $f(x)=4\cdot\left(\frac{1}{2}\right)^x$ exponential

3) $f(x)=-2x+1$ linear

4) $f(x)=|x-3|+2$ Absolute value

5) $f(x)=2$ Constant

6) $f(x)=-2\cdot 6^x$ exponential

7)

| x | y | |
|---|---|---|
| 9 | 2 | -4 |
| 3 | -2 | -4 |
| -3 | -6 | -4 |
| -9 | -10 | |

linear

8)

| x | y | |
|---|---|---|
| -1 | 16 | +14 +10 |
| 0 | 2 | +4 +10 |
| 1 | -2 | +6 +10 |
| 2 | 4 | +16 +10 |
| 3 | 20 | +26 |
| 4 | 46 | |

quadratic

9)

| x | y | |
|---|---|---|
| 0 | 4 | ·3 |
| 1 | 12 | ·3 |
| 2 | 36 | ·3 |
| 3 | 108 | ·3 |
| 4 | 324 | |

exponential

10)

| x | y | |
|---|---|---|
| 2 | 5 | +2 |
| 3 | 7 | +2 |
| 4 | 9 | +2 |
| 5 | 11 | |

linear

11)

| x | f(x) | |
|---|---|---|
| -5 | 16 | +0 |
| -3 | 16 | +0 |
| -1 | 16 | +0 |
| 2 | 16 | |
| 5 | 16 | |

constant

12)

| x | f(x) | |
|---|---|---|
| 2 | 40.5 | ÷1.5 |
| 3 | 27 | ÷1.5 |
| 4 | 18 | ÷1.5 |
| 5 | 12 | ÷1.5 |
| 6 | 8 | |

exponential