

## Group Warm Up Block wk 5 sem 2

In your groups, work together to answer each question. Each of you should have work on your paper. This warm up will be counted as part of the stamping for Block day work.

**True or False. Justify your answer (use words and/or math to explain your answer)**

1.  $\log_2 4 + \log_2 8 = 5$

**True**

2.  $\log_3 \frac{3}{2} = \frac{1}{2} \log_3 3$

**False**

3.  $\log(x-2) = \frac{\log x}{\log 2}$

**False**

4.  $\frac{\log_b x}{\log_b y} = \log_b \frac{x}{y}$

**False**

5.  $(\log x)^2 = \log x^2$

**False**

6.  $\log_4 7 - \log_4 3 = \log_4 4$

**False**

**Put into standard form**

$f(x) = 17 - x^2$     $g(x) = 3x^2 + 2x + 1$     $h(x) = x - 2$

7.  $f \circ g(-2)$

**-64**

8.  $f - g$

**$-4x^2 - 2x + 16$**

9.  $f \circ h(x)$

**$-x^2 + 4x + 13$**

**Evaluate (no calc)**

10.  $\log_2 \sqrt{3} - \frac{1}{2} \log_2 48$

**-2**

**Simplify (#11-13)**

11.  $\sqrt[3]{-54x^{15}y^8z}$

**$-3x^5y^2\sqrt[3]{2y^2z}$**

12.  $\frac{\sqrt[4]{9x^3y^2z}}{\sqrt[4]{6xy^3z^3}}$

**$\frac{\sqrt[4]{24x^2y^3z^2}}{2yz}$**

13.  $\frac{x^3 + 27}{9 - x^2}$

**$-\frac{x^2 - 3x + 9}{x - 3}; x \neq \pm 3$**