

Precalc Review Worksheet

Math 1A, section 106

January 21, 2014

0. (Warmup.) What is $0 \cdot 1$? What is $0 + 1$? What is $1 + 2$? What is $12 \cdot 12$?
1. Simplify: $1 + 2 - 3 \cdot 4/5 + 4/3 \cdot 2 - 1$
2. Simplify: $\left(-\frac{3}{\sqrt{2}}\right)^4$
3. Simplify: $2 \cdot \log_2(x + y) + \log_2(x - y)$. What is $2^x \cdot 2^y$?
4. Simplify: $\log_2(3) \cdot \log_3(2)$
5. Expand: $(x + y)^4$
6. Expand: $(x + y + z)^2$
7. Plot the graph of the equation $2y = x^2 - 2x - 1$.
8. What is 70° in radians? What is $\pi/3$ radians in degrees?
9. Compute $\sin(-\pi/4) + \cos(-\pi/4) + \tan(-\pi/4)$.
10. Compute $\sin^2(70^\circ) + \cos^2(70^\circ)$.
11. What is $\sin(15^\circ)$? Hint: It may help to write this as $\sin(45^\circ - 30^\circ)$.
12. Find the coordinates of the points of intersection of the line $x + y = 1$ with the circle $x^2 + y^2 = 2$.

For additional review problems, see the diagnostic tests section in the class textbook.