AA2 Wk 13 Tuesday
Show ALL Work on a separate sheet no work= no credit Name:_____

FINAL REVIEW #G No calculators, please!

1. Solve $3|x + 4| - 7 = 14$

A. 3 B. $6\frac{1}{3}$ C. {3, 11} D. {-11, 3}

2. Solve the system for x + y + z.

$3x + 4z = -1$
$-3x + 2y - z = -6$
$x + 4y + 2z = -9$

A. –2 B. 0 C. 1 D. 2

3. Factor completely, $64x^3 - 1$

A. $(4x - 1)(16x^2 + 4x + 1)$ B. $(4x - 1)^3$

C. $x(8x + 1)(8x - 1)$ D. Not factorable

4. $\frac{-1-2i}{-1+2i}$

A. –1 B $-i$ C. $-\frac{3}{5}+\frac{4}{5}i$ D. $1+\frac{4}{5}i$

5. Simplify $\frac{x^2-4}{2x^2-5x+2} \div \frac{2x^2-3x-2}{4x^2-1}$

A. $\frac{x-2}{x+2}$ B. $\frac{x+2}{x-2}$ C. $\frac{(x+2)(2x+1)}{(x-2)(2x-1)}$ D. -1

6. Which of the following equations will *not* have at least one point in every quadrant?

A. $y = 6 + 6x - 3x^2$ B. $y + 6 = 2(x + 1)^2$

C. $y - 5 = -(x + 2)^2$ D. $y = 3x^2 - 6x + 1$

Over↓ ☺

7. Simplify $\dfrac{\sqrt[5]{27^3}}{\sqrt[5]{9^2}}$

A. $\sqrt[5]{3}$ B. $\sqrt[5]{9}$ C. $\sqrt[5]{27}$ D. 3

8. Solve for x: $\log_2 100 = x$

A. $\dfrac{\log 2}{2}$ B. $\dfrac{1}{\log 1}$ C. 10 D. None of these

If $\log_{10} 2 = 0.30$ and $\log_{10} 3 = 0.48$ answer the following :

9. $\log_{10} 18 =$

A. 0.78 B. 1.26 C. 1.74 D. Cannot be determined

10. How many different signals can be made by displaying five flags, all at one time, on a flagpole? The flags differ only in color; two are red, two are white and one is blue.

A. 120 B. 30 C. 5 D. 4

11. A committee of 3 students is to be formed from a group of 4 boys and 5 girls. What is the probability that the committee will consist of all boys?

A. $\dfrac{3}{4}$ B. $\dfrac{1}{3}$ C. $\dfrac{4}{79}$ D. $\dfrac{1}{21}$

12. Expand $(2x - y)^5$

A. $32x^5 + 80x^4y + 80x^3y^2 + 40x^2y^3 + 5xy^4 + y^5$

B. $32x^5 - 16x^4y + 8x^3y^2 - 2x^2y^3 + 5xy^4 - y^5$

C. $32x^5 - 80x^4y + 80x^3y^2 - 40x^2y^3 + 5xy^4 - y^5$

D. $32x^5 - 5x^4y + 10x^3y^2 - 10x^2y^3 + 5xy^4 - y^5$

E. None of these