Name:

QUIZ – MATH GRADE 10

Calculate/Simplify as much as possible:

1. (5%) $-(-2)^{-2} - 2^{-1} =$

2. (5%) $x^{-2} + x =$

3. (5%) $8^{-\frac{1}{3}} - (-27)^{\frac{1}{3}} =$

4. (8%) $\left(\frac{64}{100}\right)^{-\frac{1}{2}} =$

5. (8%) $\left(\frac{-8}{125}\right)^{-\frac{5}{3}} =$

6. (8%) $(-8)^{\frac{2}{3}} =$

7. (8%) $-16^{-\frac{3}{4}} =$

8. (8%) $(-4)^{\frac{3}{2}} =$

9. (5%) Write in the form a^n: $a\sqrt{a\sqrt{a^3}} =$

10. (8%) Expand and simplify $\left(\frac{2-5\sqrt{3}}{\sqrt{3}-\sqrt{2}}\right)^{-2} =$

11. (8%) Simplify $\sqrt{\left(\frac{25}{8}\right)^{-4} \div \left(\frac{32}{125}\right)^{-2}} =$

12. (8%) Write the following in the form 3^a

$$\left(\frac{1}{9}\right)^{-2} \frac{81 \cdot \sqrt[3]{9}\sqrt{3}}{3^{\frac{3}{2}} 9^{-2}} =$$

13. (8%) Write in the form $2^n a^m$: $\frac{\sqrt[3]{16a^2b}}{2b\sqrt{a^{-2}}} 16a =$

14. (8%) Simplify $\frac{2^n - 2^{n-1} + 2^{n+2}}{2^{n-1} + 2^{n-2} + 2^{n-2}} =$