

Name:

QUIZ 4 – MATH GRADE 9

1. (70%) Calculate/Simplify as much as possible:

a. (5%) $-3^{-2} - 5^{-1} =$

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

c. (5%) $x^{-3} + x =$

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

e. (5%) $\left(\frac{64}{100}\right)^{-\frac{1}{2}} =$

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

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

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

i. (10%) Simplify $\sqrt{\left(\frac{25}{8}\right)^{-4} \div \left(\frac{32}{125}\right)^{-2}} =$

j. (15%) Write the following in the form 3^a

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

2. (30%)

a. (15%) Write in the form $2^n a^m$: $\frac{\sqrt[3]{16a^2b}}{2b\sqrt{a^{-2}}} 16a =$

b. (15%) Simplify $\frac{2^n - 2^{n-1} + 2^{n+2}}{2^{n-1} + 2^{n-2} + 2^{n-2}} =$