Math 100   Name: _____

American River College

Quiz 7   Student ID: _____

❖ Show all work

❖ No notes, books, or calculators allowed.

❖ Write answers in lowest terms when possible

Divide the polynomials. Express the quotient as a sum/difference of fractions and simplify.

1. $\dfrac{5a^3 - 10a^2 + 4a}{5a}$

Match the special product on the left with its expanded form on the right. There is only one answer for each numbered problem even though several possible answers are provided.

2. $(x + 2)^2$ _____   a. $36x^2 + 24xy + 4y^2$

                                                 b. $x^2 - 4x + 4$

3. $(x - 2)^2$ _____   c. $16x^2 + 9y^2$

                                                 d. $64 - x^2$

4. $(4x - 3y)(4x + 3y)$ _____   e. $16x^2 + 8x + 1$

5. $(6x + 2y)^2$ _____   f. $64 + x^2$

                                                 g. $x^2 + 4x - 4$

6. $(8 - x)(8 + x)$ _____   h. $36x^2 - 24xy + 4y^2$

                                                 i. $16x^2 - 24xy - 9y^2$

7. $(4x + 1)^2$ _____   j. $x^2 + 4x + 4$

                                                 k. $16x^2 - 9y^2$