Are you ready for Advanced Algebra 2?

1. Are you prepared to spend about 40 minutes a night doing math homework?
2. One algebra 2 lesson is equivalent to four algebra 1 lessons. Will you able to keep up with two algebra 2 lessons a day in a block period?
3. Can you quickly solve each of the problems in the section below?

If you answered "No" to any of these questions, you are not ready for Advanced Algebra 2. You may have been able to easily grasp concepts in algebra 1 and pass tests without doing homework. If you do not do your homework in algebra 2, you will either be transferred to Math 1 or fail algebra 2. Algebra 2 is a giant step above algebra 1. More is taught in one lesson and the concepts are harder. If you can't keep up, you will become very frustrated, get a poor grade and eventually be moved to Math 1. In our experience, students who did not get advanced on the algebra CST are not successful in advanced algebra 2. If you can't solve the problems below, you are definitely not ready for algebra 2, much less advanced algebra 2. After algebra 2, there are only advanced classes, so options are very limited.

Problems

Simplify:

1. $x^2 \cdot x^5$
2. $\left(x^3\right)^4$
3. $\left(3x^2\right)^3$

Factor:

4. $x^2 + 5x - 24$
5. $3x^2 - 11x - 20$
6. $2x^3 + 4x^2 - 3x - 6$

Perform the indicated operation:

7. $\frac{3}{7} + \frac{4}{3}$
8. $\frac{1}{4} - \frac{2}{3} + \frac{5}{6}$
9. $\frac{3}{7} \cdot \frac{14}{8}$
10. $\frac{5}{8} \div \frac{5}{16}$
11. What is half of one-fourth?

Solve the equation:

12. $3(x - 9) = 5x - 27$
13. $x^2 - 4x - 21 = 0$
14. $4x^2 - 6x + 1 = 0$
15. $\frac{2x}{3} + \frac{1}{4} - \frac{x}{6} = 2$

Correct answers:

1. x^7 **2.** x^{12} **3.** $27x^6$ **4.** $(x + 8)(x - 3)$ **5.** $(3x + 4)(x - 5)$ **6.** $(x + 2)(2x^2 - 3)$
7. $\frac{37}{21}$ **8.** $\frac{5}{12}$ **9.** $\frac{3}{4}$ **10.** 2 **11.** $\frac{1}{8}$ **12.** x = 0 (That is zero. "No solution" is an incorrect answer.) **13.** 7, –3 **14.** $\frac{3 \pm \sqrt{5}}{8}$ **15.** $\frac{7}{3}$

If you have questions or concerns, contact Mr. Fitzpatrick: mfitzpatrick@murrieta.k12.ca.us