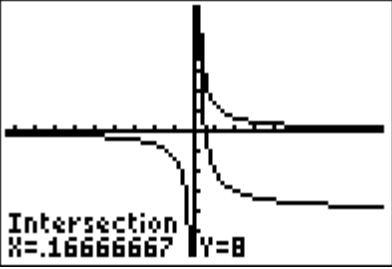# Algebra 2 Module 7 Lesson 2 Assessment Test Feedback
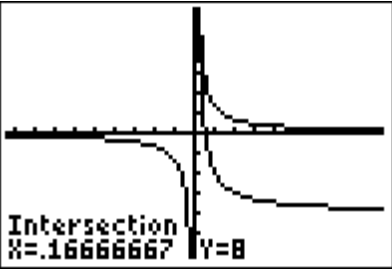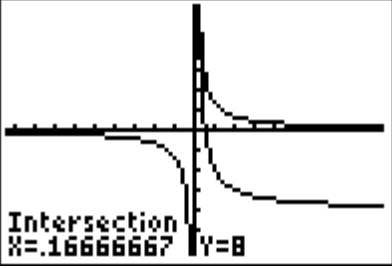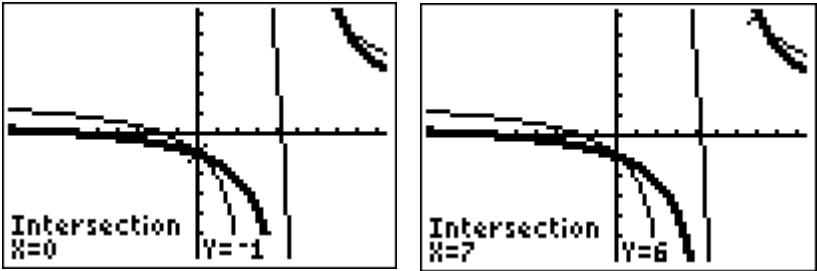
1. What is the solution to the equation $\dfrac{4}{3x} = \dfrac{2}{x} - 4$?

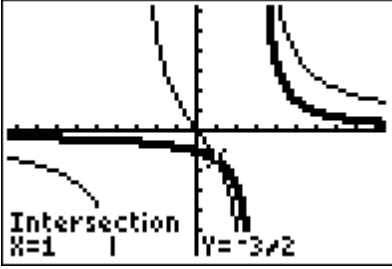|	
A. $\dfrac{1}{6}$	Correct. A graphical solution is shown below. Intersection X=.16666667 Y=0
B. 8	Incorrect. That's the *y*-coordinate of the point of intersection. You need the *x*-coordinate. Intersection X=.16666667 Y=0
C. -3.4 and 0.4	Incorrect. Check that you entered the left side of the equation correctly into Y=.
D. No real solution	Incorrect. There is a solution to this equation. Intersection X=.16666667 Y=0

2. How many solutions are there to the equation $\dfrac{10}{x} + 3 = \dfrac{x+9}{x-4}$

A. 0	Incorrect. If you graph both sides of the equation on your graphing calculator, you will see that there are two points of intersection, so there are two solutions.
B. 1	Incorrect. If you graph both sides of the equation on your graphing calculator, you will see that there are two points of intersection, so there are two solutions.
C. 2	Correct. The graph of $y = \dfrac{10}{x} + 3$ intersects with the graph of $y = \dfrac{x+9}{x-4}$ two times, therefore, there are 2 solutions to the equation.
D. Infinitely many	Incorrect. If you graph both sides of the equation on your graphing calculator, you will see that there are two points of intersection, so there are two solutions.

3. Solve for a: $\dfrac{a}{a-5} + \dfrac{a+3}{a-3} = \dfrac{a+5}{a-5}$

A. No real solutions.	Incorrect. There are two solutions to this equation.
B. -1, 6	Incorrect. Those are the y-coordinates of the points of intersection. The solutions to the equation are the x-values of the points of intersection.
C. 0	Incorrect. There are two solutions to the equation. You only found one of them.
D. 0 and 7	Correct. The graphs below show the solutions.

4. Solve for x: $\dfrac{3}{x-3} = \dfrac{4x^2}{x^2-9} - \dfrac{4x}{x+3}$

A. No real solutions.	Incorrect. There is one solution to this equation.
B. $x = \dfrac{3}{2}$ or $x = -3$	Incorrect. If you solve the equation graphically or with a table, you will see that there is only one solution to the problem.
C. $x = \dfrac{3}{2}$	Correct. The graph below shows the solution.
D. $x \neq \pm 3$	Incorrect. These are the values excluded from the domain of the expressions, but they are not the solutions to the equation.