### Math Book Errata: The Best ACT Math Books Ever

Errata are periodically fixed with updates to our online manuscript. Thus to find what mistakes might be in your book, look at the print date on the last page of the book. Review down as far as necessary to include your print date. All more recent issues will likely also be in your edition if you have an earlier print date. Find a mistake not here? Email us at <u>info@supertutortv.com</u>. Thanks!

# Book 1 Algebra (Draft released March 14-March 27 2019)

Chapter 2: Systems of Equations

12. Though the solution process would be correct if the question were written correctly, as written it is impossible for the solution set to be a full equation given the two equations that form the system. The coefficient of y in 3x+4y=12 should be 2 and coefficient 28 in the lower equation should be 14, and then the problem works.

Chapter 3: FOIL and Factoring

16. Choice E should read a=b or b=0. Value b can also be zero because in the last step, we divide by a variable to get a=b. Whenever you divide by a variable, you must account for the fact that zero is also a solution.

The correct answer given is that a must be equal to b in order for (a - b)<sup>2</sup> = a<sup>2</sup> - b<sup>2</sup>, however, it is possible for a to not be equal to b and for (a - b)<sup>2</sup> to equal a<sup>2</sup> - b<sup>2</sup>. If b = 0 and a equals some arbitrary number like 5, then it is possible for (a - b)<sup>2</sup> = a<sup>2</sup> - b<sup>2</sup> → (5 - 0)<sup>2</sup> = 5<sup>2</sup> - 0<sup>2</sup> → (5)<sup>2</sup> = 25 - 0 → 25 = 25. Thus, it is possible for a to not equal b and for (a - b)<sup>2</sup> = a<sup>2</sup> - b<sup>2</sup>. Therefore, the correct answer given in the answer explanation is not entirely correct, because it states that a = b must be true, and it does not have to be. One possible solution to this is changing the answer choice from E. a = b to E. Either a = b or b = 0

## Chapter 4: Manipulations

9. For question 9, the answer choice D has a denominator of 2. This is supposed to be have a denominator of 3. It is written correctly in the answer explanation, but not the question and its answer options.

Ch 9 Ratios Rates & Units

#13 The answer explanation erroneously uses "cm" instead of "mm" as a label for an initial rate. The initial rate is in "mm" but all math and final calculations are correct.

Ch 13 Coordinate Geometry.

#5 The explanation used erroneous numbers. The lettered answer is correct, the conceptual method described is correct, but the range of values when the straight line is below the curvy line are as written in answer choice D not as written in the explanation.

## Ch 14 Absolute Value

#10 should be B not D. The first part of the equation equals the opposite of n to the fifth, matching answer B. Because we know n is negative, and the absolute value makes it positive, we need the opposite of the n to an odd power to make it positive also.

# Chapter 19: Rational Expressions

6. Should be B not D. The explanation is 100% correct and finds the correct numeric answer the but the given answer choice is incorrect.

Chapter 23: Translations / Reflections

Problem Set

1. This graph is a cubic function but the answer choices are erroneously quadratic functions (parabolas). All instances of exponents should read "3" instead of "2" and the explanation should also reflect that this is a cubic function not a quadratic. All other elements of the question are correct.

15. The explanation is incomplete. After narrowing choices to B and E from the left and downward shifts, consider that the slope of the line(s) in g(x) are steeper than those in f(x). Thus we must have a multiple creating some compression on the graph, and B has a coefficient of 2 that will accomplish this, while choice E does not, so B is correct.

18. The question erroneously says the coordinate of point D' is (a,-b) when this is the coordinate D.

23. The answer choices are incorrect. They should read: A. 6, B. 7, C. 8, D. 9, E. 10