

# Algebra 1 Assignment #1

November 11, 2012

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1. Barry has a rectangular sheet of paper measuring 11 in. length by 16 in. width. He then cut the paper in half by its diagonal, forming a triangle. With that, he then fold the triangle in perfect halves, and cuts the paper along its crease. What is the final area of that paper when he finishes cutting it?

2. Barry's friend Albert has another sheet of paper that has the same dimensions as Barry's. Albert cuts the length off the paper by 25% and cuts the width by 36%. What percent did the area of the paper decrease by?

3. Two cars are in a race. Car A is at the starting line and is racing at 70 mph at the beginning of the race. Car B is trying to cheat. He is 5 miles in front of the starting line at the beginning of the race and is racing at 55 mph. How long (in minutes) will Car A catch up with Car B?

4. Solve for x.  $\frac{23}{3} + \frac{2}{9} - \frac{2x + \frac{6}{7}}{x} = \frac{4}{5}$

5. The Smith family has 2 children, Bill and Michael. Bill is 3 times the age of Michael. The sum of their ages is 101. How old are they?