rind a solution to each of the following. Show all of your work in the box provided.

1. The area of the trapezoid is represented by the expression $6 y^{2}-5 y-6$. Find an expression for the height of the trapezoid.

2. Write and simplify an expression that represents the fraction of the area of the large rectangle covered by the shaded rectangle.

3. The diagram shows trapezoid ABCD divided into rhombus ABCE and isosceles triangle ADE. Write an expression for the area of the trapezoid.

. A backgammon game board consists of two rectangles the same size, known as the tables, separated by a divider, called the bar. If x has a value of 15 cm , determine the area of the board.

4. The answer to the division of two rational expressions is $(x-3)(x+2)$. What could the rational expressions be?
5. Write and simplify an expression that represents the ratio of the area of $\triangle \mathrm{ABC}$ to the area of $\triangle \mathrm{DEF}$.

