Solving Quadratic Equations Worksheet:

1) Solve each equation by completely factoring the polynomial and applying the Zero Factor Property.
No Decimal Answers.
$$(x+2)^2 = 9$$

2) Solve each equation by completely factoring the polynomial and applying the Zero Factor Property.
No Decimal Answers.
$$36a^2 = 9a$$

3) Solve each equation by completely factoring the polynomial and applying the Zero Factor Property.
No Decimal Answers.
$$x(x-3) = 28$$

4) Solve each equation by completely factoring the polynomial and applying the Zero Factor Property.
No Decimal Answers.
$$2x^3 + 7x^2 = 15x$$

5) A penny is dropped from the roof of a building 256 feet above the ground. The height h (in feet) of the penny after t seconds is modeled by the equation
$$h = -16t^2 + 256.$$
How long does it take for the penny to reach the ground?
   a) Write an algebraic equation using the given position equation.
   b) Solve the equation.
   c) Write a well-structured sentence with the units correctly stated.

6) The rectangular floor of a storage shed has an area of 540 square feet. The length of the floor is 7 feet more than its width. What are the dimensions of the floor?

   a) Write an algebraic equation to find the dimensions.
   b) Solve the equation.
   c) Write a well-structured sentence with the units correctly stated.