

Math-19 Homework #4

1. Page 57 Problem 90. Make sure all of your stated solutions are in the domain and are not extraneous!
2. Solve for x . Be sure to check for extraneous solutions.

$$x^2 - \sqrt{9 - 3x^2} = 0$$

3. A man stands atop a 100ft cliff and releases a ball so that it falls to the ground.
 - (a) How long does it take for the ball to hit the ground if he throws the ball up with a velocity of $10ft/s$?
 - (b) In solving the problem, you probably came up with a positive and a negative solution. What does the negative solution represent?
 - (c) Assume that a lady is standing on the ground below the cliff and throws a ball up so that it passed the man on the cliff at a velocity of $10ft/s$. How long would it be before the ball hits the ground? (Hint: if you have answered the first parts correctly then this part should take you 5 seconds to answer!)
4. Page 75 Problem 22
5. Page 75 Problem 26
 - (a) Solve the problem.
 - (b) How long would it take for Ben to double his money?
6. Page 76 Problem 46
7. Page 76 Problem 50
8. Page 76 Problem 54
9. Page 78 Problem 62
10. Page 78 Problem 66