

Week 27: Problem Solving Quiz All Classes Six Problems

Name: _____ Period: _____ Date: _____

Show work: Probability Problem:

8. Mark and John take turns in flipping a coin in their respective order. The first one who flips heads will win the game. What is the probability that John wins the game in at most 3 turns?

- A. $\frac{1}{8}$
- B. $\frac{1}{64}$
- C. $\frac{21}{64}$
- D. $\frac{7}{64}$
- E. $\frac{7}{8}$

30. The average of 3 positive integers is 5 and the average of their reciprocals is $\frac{17}{72}$.

If the product of these numbers is 96, what is the sum of the two smallest numbers on this list?

- A. 5
- B. 6
- C. 7
- D. 8
- E. 9

31) List the intercepts of the equation $y = x^2 - 9$.

32) Solve the equation $2x^2 + 7x - 4 = 0$.

33) To complete the square of $x^2 - 5x$, you add the number _____.

34) To graph $y = (x - 4)^2$, you shift the graph of $y = x^2$ to the _____ a distance of _____ units.