Practice Question # 1

- The first term in a geometric sequence is two and the common ratio is four. What term is 131,072 in this sequence?

Practice Question # 2

- Amanda is selecting 3 marbles from a bag at random. In the bag there are 4 blue marbles, 3 yellow marbles, and 5 red marbles. What is the probability that Amanda will select 2 yellow marbles and 1 red marble?

Practice Question # 3

- A new card game at a casino allows you to draw one card from a standard deck of cards. If you pick a heart, you will win $10. If you pick a face card, which is not a heart, you win $8. If you pick any other card, you lose $6. Does the game benefit the "house" or the player?

Practice Question # 4

- What are the domain and range (in interval notation) of the following functions?

a.) $f(x) = -|x+2|+4$

b.) $f(x) = \sqrt{x-3}+1$

c.) $f(x) = \ln(x+4)-3$

Practice Question # 5

- Verne is constructing a triangular pen with wood fencing. One side is 425 feet long, another side is 550 feet, and the included angle is 43°. It will cost $8 per foot to fence the pen. How much will Verne have to spend on his pen?

Practice Question # 6

- The point (– 12 , – 8) lies on the terminal side of an angle in standard position. What is the value of this (positive) angle?