Exam Review Expected Value, Sequences, Series

1) Evaluate: $\sum_{n=4}^{10} 3n - 8$

2) Using the given sequence, determine the 12th and 82nd term:

43, 40, 37, 34, 31, 28, _, _, _, ...

3) Using the given sequence, 6, ____, ____, ____, ____, -192, determine the common ratio. Then, find the missing numbers.

4) There is a raffle with 250 tickets. One ticket will win a $890 prize, and the other ticket will win nothing. If you have a ticket, what is the expected payoff?

5) At Tucson Raceway Park, your horse, Soon-to-be-Glue, has a probability of 1/20 of coming in first place, a probability of 1/10 of coming in second place, and a probability of ¼ of coming in third place. First place pays $4,500 to the winner, second place $3,500 and third place $1,500. Is it worthwhile to enter the race if it costs $1,000?