

Algebra II Chapter 12 Practice Test

Remember to work only in pencil. You may use your textbook and your notes for this exam. Feel free to work together today. Tomorrow's test will be very challenging.

(#1) Find the number of unique permutations of the letters in the word SASSAFRASS.

(#2) Evaluate ${}_{18}C_{12}$.

For problems 3 and 4, a horse race has nine contestants.

(#3) How many different ways could any three of them place in the top three, regardless of their order?

(#4) How many different ways could any three of them place 1st, 2nd and then 3rd?

(#5) Expand using the binomial theorem.

$$(3h^2 - 2v^3)^7$$

(#6) What is the probability of drawing a red card lower than 8 or a spade higher than 10 from a standard deck of 52 cards? Assume aces are high.

For problems 7 through 9, you are given:

$$P(A) = \frac{11}{36}; \quad P(A \wedge B) = \frac{1}{20}; \quad P(A \vee B) = \frac{7}{9}$$

(#7) Find $P(B)$.

(#8) Find $P(B')$.

(#9) Find $P((\neg A) \vee B)$.