

School Name _____

SENIOR HIGH MATH LEAGUE
April 24, 2001

Bonus Relay

Question 1) $k_1 =$ _____

Question 2) $k_2 =$ _____

Question 3) $k_3 =$ _____

Question 4) Answer = _____

ORDER OF FINISH _____

QUESTION 1

Find the y-coordinate of the y-intercept for a line perpendicular to the line $3x - 2y = 6$ and going through the point $(6, 6)$.

Place the number representing your answer in the **k1=** slot on the answer key and then pass the key to the person behind you.

QUESTION 2

How many liters of (**k1**) percent saline solution must be added to 30 liters of a 90 percent saline solution to form a seventy percent saline solution?

Place the number representing your answer in the **k2=** slot and then pass the key to the person behind you.

QUESTION 3

The average of **k2** students on a particular exam is 85 but several students haven't taken the exam yet. If the students who need to take the exam take it and average 75 on the test thus lowering the class average to 80, how many students failed to take the exam the first time?

Place the number representing your answer in the **k3=** slot and then pass the key to the person behind you.

QUESTION 4

Two sailboats each traveling at a constant speed start out at the same port and travel on different but constant headings that vary from each other by 60 degrees. One, leaving an hour after the other one, is traveling 5 km/hour faster than the one that left first. Two hours after the first one left they are exactly **k3** km apart. What is the speed to the nearest km/hour of the faster of the two sailboats?

Place the number representing your answer on the answer key beside **answer =** and **stand up** to be given an order of finish which you then place in the appropriate slot at the bottom of the answer key.

Finally, hand in your answer key.