Perm number:

Test 1

Time: 75 minutes

1. Solve the following system of equations:

$$\begin{cases} w+z=4\\ 2w+z=5 \end{cases}$$

2. Let f(x) = 3x - 2. Find a formula for the inverse function to f(x).

3. Car A and car B leave the origin at noon. Car A travels north at 33 mph and car B travels east at 56 mph. How far apart are they at 2 PM?

4. I have milk that contains 1% fat and milk that contains 4% fat. How much of each type of milk should I use to get 1/2 pint of 2% milk?

5. Central Park is a rectangle with an area of 840 acres. It is 1/2 mile wide. One square mile is 640 acres. Two people start at the south-west corner at 1:30 PM and start walking round the park in opposite directions. One walks 2 mph and the other walks 3 mph. When do they meet again?

6. Given that $f(x) = 3x^2 + 2x$, find [f(x+h) - f(x)]/h.