Q1 - Answer = c
Q2 - Problem A - Last name A-K

A strong horse pulls a plow at a constant 5 m/s. If the frictional force on the plow is 186 N, how many horsepower does the horse develop. (1 hp = 746 W)

A. 0.5 hp

B. 1.0 hp

C. <u>1.25 hp</u> P = F v = 186 x 5 = 930 W = 1.25 hp

D. 1.5 hp

E. 1.75 hp

Q1 - Answer = c

Q2 - Problem B - Last Name L-Z

- A car is traveling on a level road at a constant speed of 20 m/s. If the frictional forces on the car are equal to 3,750 N, what minimum horsepower must the car's engine develop? (1 hp = 746 W)

A. 20 hp

B. 50 hp

C. 75 hp

D. 100 hp P = F v = 3750 N x 20 m/s = 75,000 W = 100 hp

E. 375 hp