For each of the following questions please write the most correct answer in using CAPITAL LETTERS in the space provided.

Here are some possibly useful formulas

\begin{align*}
    y &= y_0 + v_{0y} t + \frac{1}{2} a_y t^2 \\
    v_y &= v_{0y} + a_y t \\
    v_y^2 - v_{0y}^2 &= 2a_y(y - y_0) \\
    g &= 9.8 \text{ m/s}^2
\end{align*}

**Question 1**

A projectile is launched straight up from ground level (near the surface of the earth) and reaches a maximum height of 18.4 meters. What was the initial velocity of the projectile at launch?

(A) 19.0 m/s  
(B) 13.4 m/s  
(C) 17.2 m/s  
(D) 0 m/s  
(E) There is not enough information to say.

Answer: A

**Question 2**

A boat starts out traveling at a constant speed going due north. It then tacks and ends up going due east at the same speed. In what direction was the boats average acceleration pointing during the tack?

(A) Northeast  
(B) Northwest  
(C) Southeast  
(D) Southwest  
(E) None of the above

Answer: C