A ship leaves New York. For the first two hours it moves at 20mph, it then speeds up to 30mph. Let $t$ be the time in hours since the ship left New York and $D$ the distance of the ship from New York.

1. Graph the speed of the ship as a function of the time for $0 \leq t \leq 10$.

2. How far does the ship cover in the first two hours?

3. Find a formula for $D$ in terms of $t$ for $2 < t < 10$. 