

## Quiz

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. Find a formula for  $D$  in terms of  $t$  in the interval  $0 < t < 1$ .

2. Find a formula for  $D$  in terms of  $t$  when  $t > 1$ .

3. How long does it take the ship to get 1000 miles from New York?