

## A 309 Precalculus

- ① a) 130  
b) overestimate, trapeziums fall above curve
- ② a) 1.0-1.3  
b) acceleration in  $m/s^2$   
c) depend on accuracy of tangent drawn
- ③ a) 21.4  
b) distance in metres  
c) underestimate as chords are under the curve
- ④ a) 52.5 seconds  
b) first part: positive  
last part: negative but magnitude greater
- ⑤ 3.1-3.7
- ⑥ a) -3.5 to -2.5  
b) rate of change of the temperature
- ⑦ a) i) 0.6-1.0  
ii) acceleration in  $m/s^2$   
b) 215-225
- ⑧ a)  $v=25$   
b)  $1.25 m/s^2$   
 $0 m/s^2$   
 $-0.625 m/s^2$