M1.

(a) $y = \tan X$

B1

(b) $y = 2x$

B1

[2]

M2.(a) 120

B1

(b) 240 or 300

Either value

B1

[2]

M3.

(a) 6

B1

(b) At least 8 of the 11 given points plotted correctly ($\frac{1}{2}$ square)

M1

Smooth curve passing through (±1 square) all 11 given points

Ignore the point at t = 12 even if incorrect

A1

(c) Smallest *t* value for *d* = 9 attempted using their graph
(= approx 2.5)

eg horizontal line drawn from (0,9) to first point of intersection with

*their graph **or** mark on t − axis corresponding to first time*

when d = 9

M1

12.00 + their 2.5 written as a time of day

oe

ft their t value ($\frac{1}{2}$ square)

SC1 M0 but final answer follows through from their graph

A1ft

(d)   Largest *t* value for *d* = 9 attempted using their graph (= approx 9.5)

eg horizontal line drawn from (0,9) to second point of intersection
*with their graph **or***
mark on t- axis corresponding to second time when d = 9

M1

Their 9.5 − 4.25 (= 5.25)

Condone their 9.5 − 4.15

M1Dep

5 h 15 min

ft their t value ($\frac{1}{2}$ square) but do not follow through from use of 4.15
SC2 M0 but final answer follows through from their graph

A1ft

[8]

M4.

(a)   *C*

Do not allow if more than one answer selected

B1

(b)   *A*

Do not allow if more than one answer selected

B1

[2]