

(4)

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Solutions

1.

$D(65) = 5 + 2 \sin(195)$	M1
$= 4.48\text{m}$	M1

2.

$3.8 = 5 + 2 \sin 30t$	M1
$30t = \sin^{-1}(-0.6)$	M1
$t = -36.9$ $t = 360 - 36.9 = 323.1$ $t = 190 + 36.9 = 216.9$	M1
As t cannot be negative and must be greater than 8.5, $t = \frac{323.1}{30} = 10.77$ $= 10.46 \text{ am}$	M1

