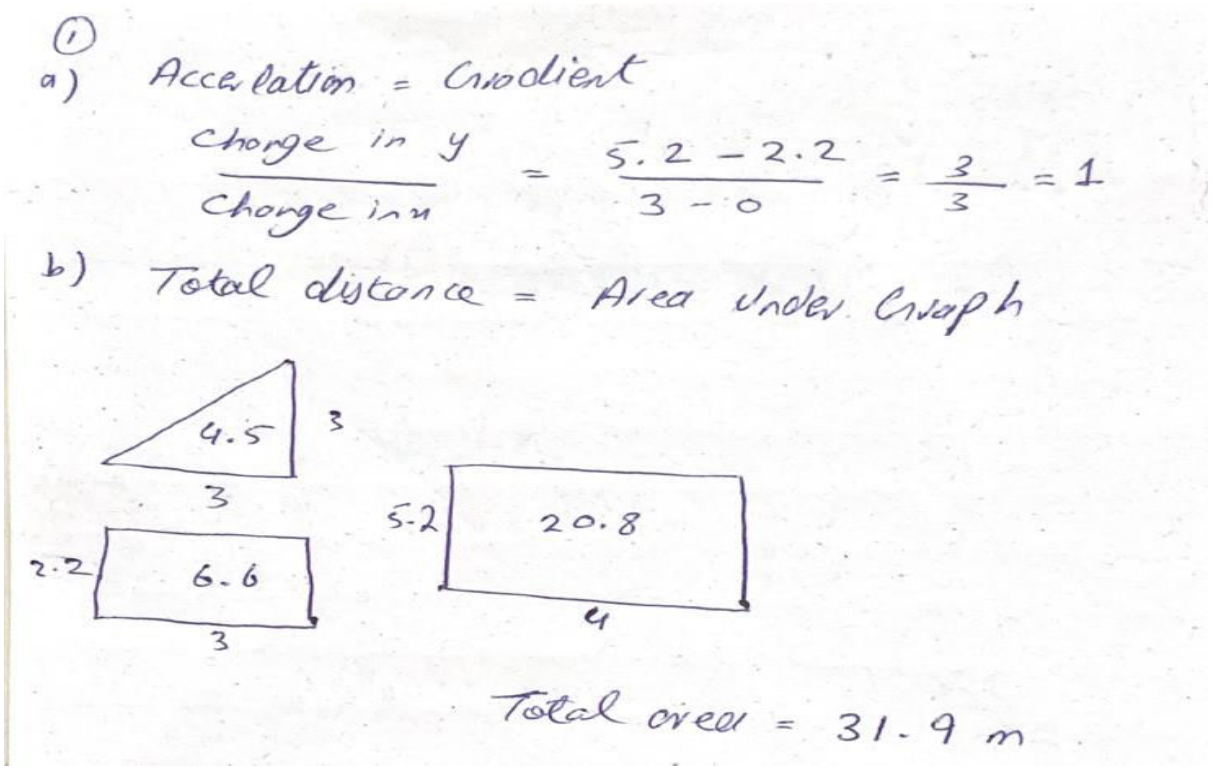
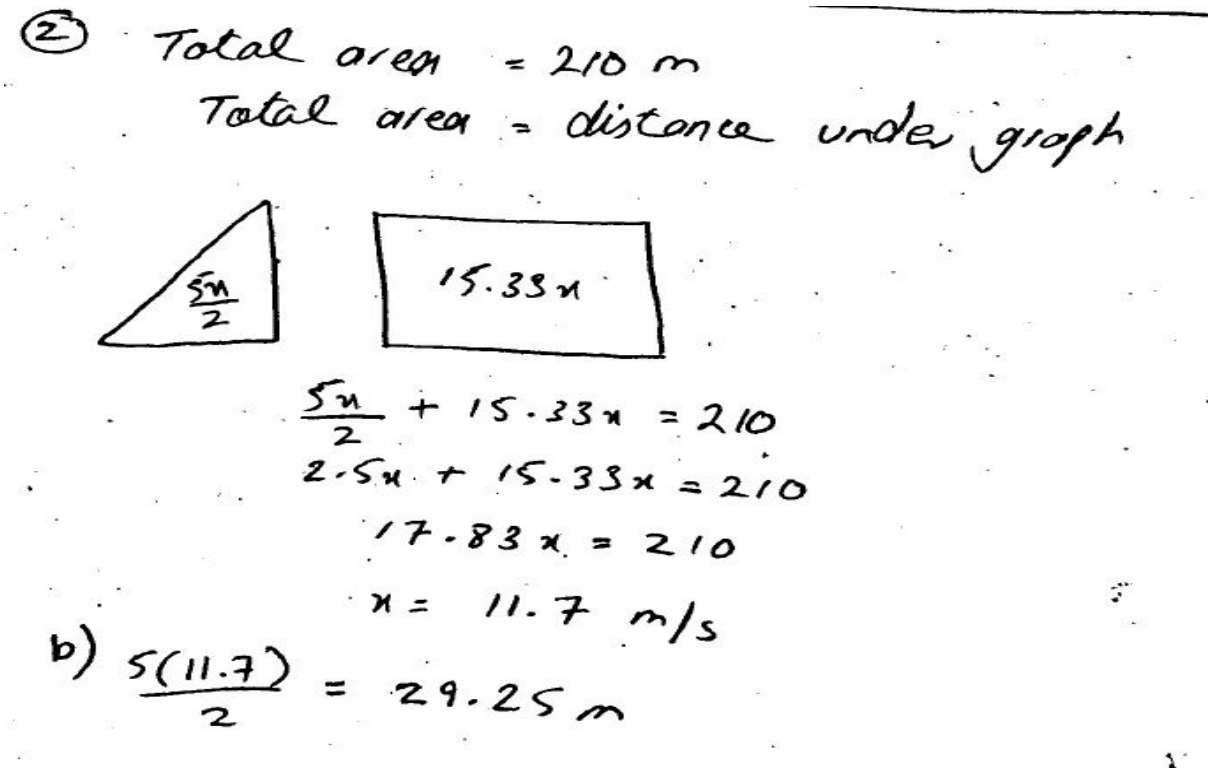
VELOCITY TIME GRAPH

ANSWERS

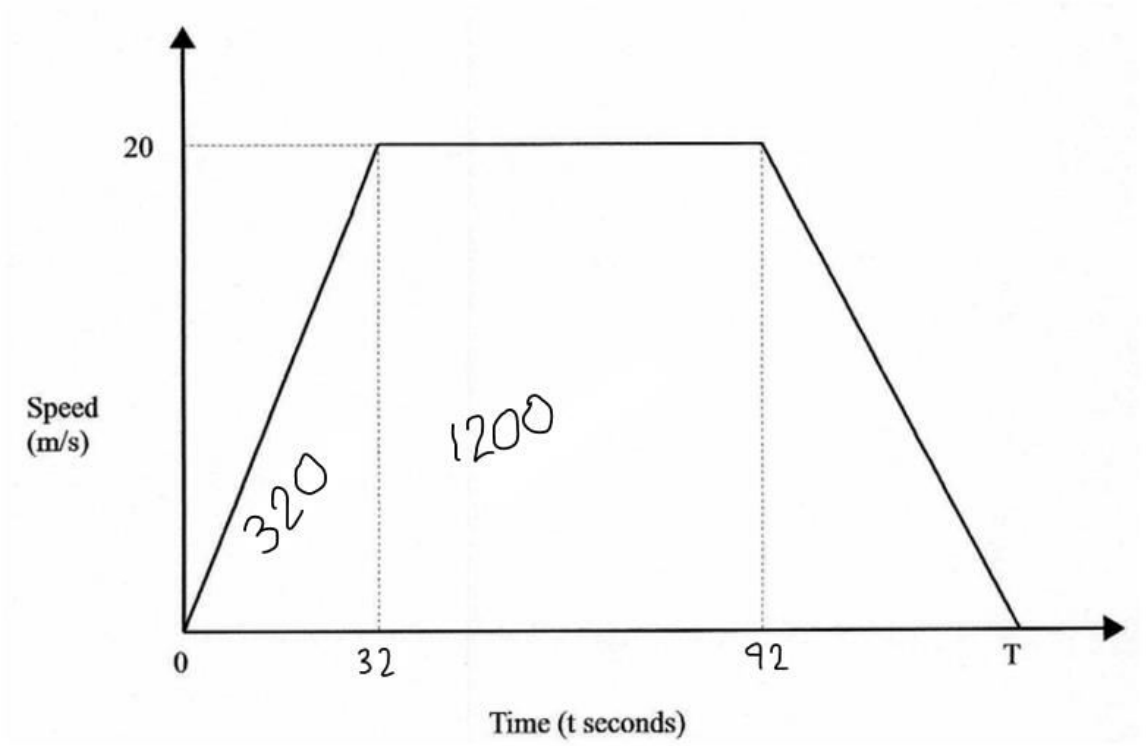
Q1



Q2



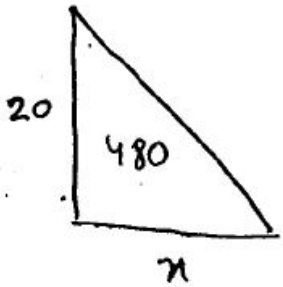
Q3



Total distance = area under graph

1520 m in 92 seconds.

2000 − 1520 = 480 m (left)



$\therefore \frac{1}{2}ab = \text{Area}$

$\frac{20x}{2} = 480$

$10x = 480$

$x = 48$

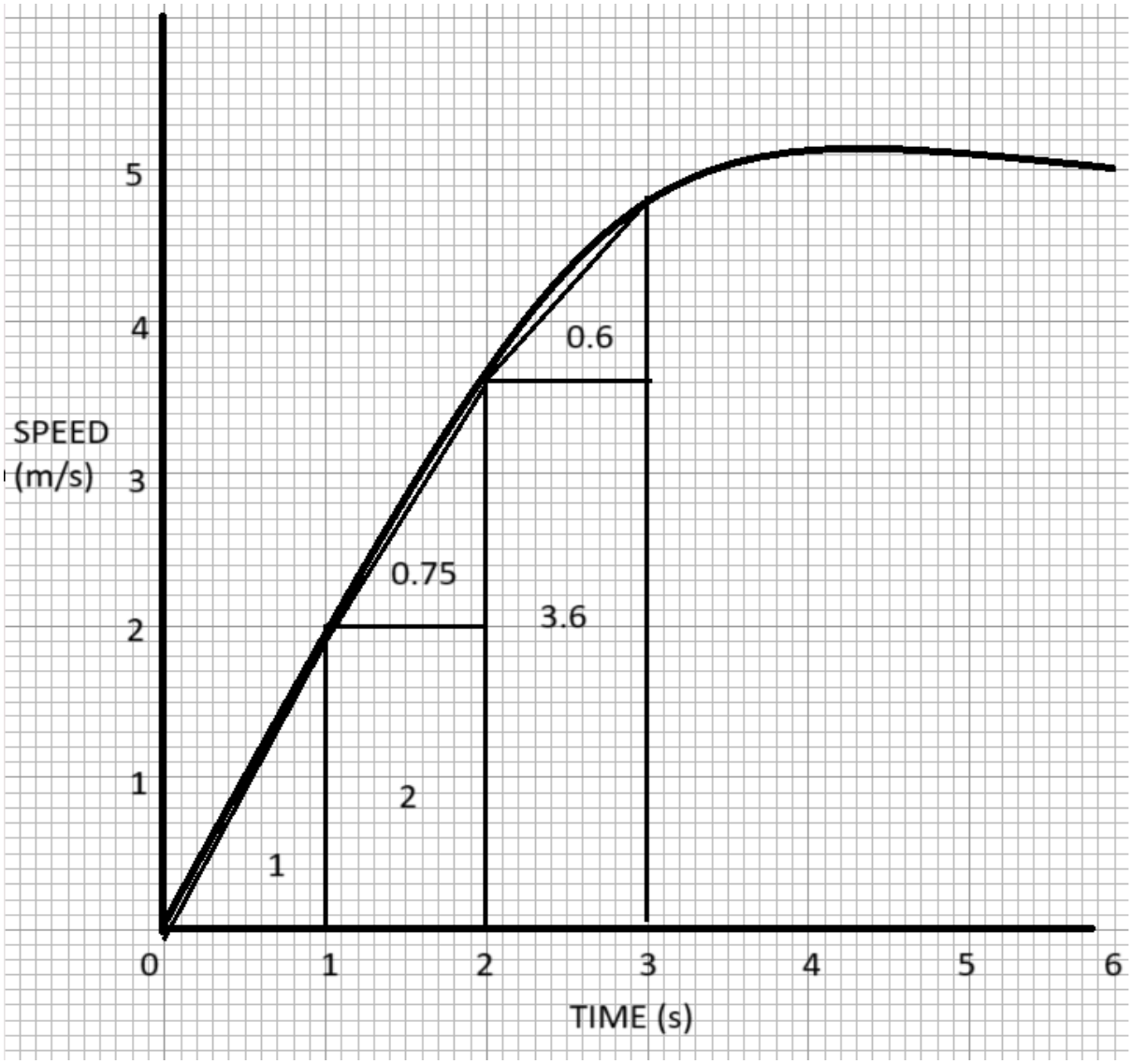
$90 + 48$

$= 138$

Q4

a) 25 / 50 = 0.5 ms^{-2}
b) 11-13 seconds (12 seconds)

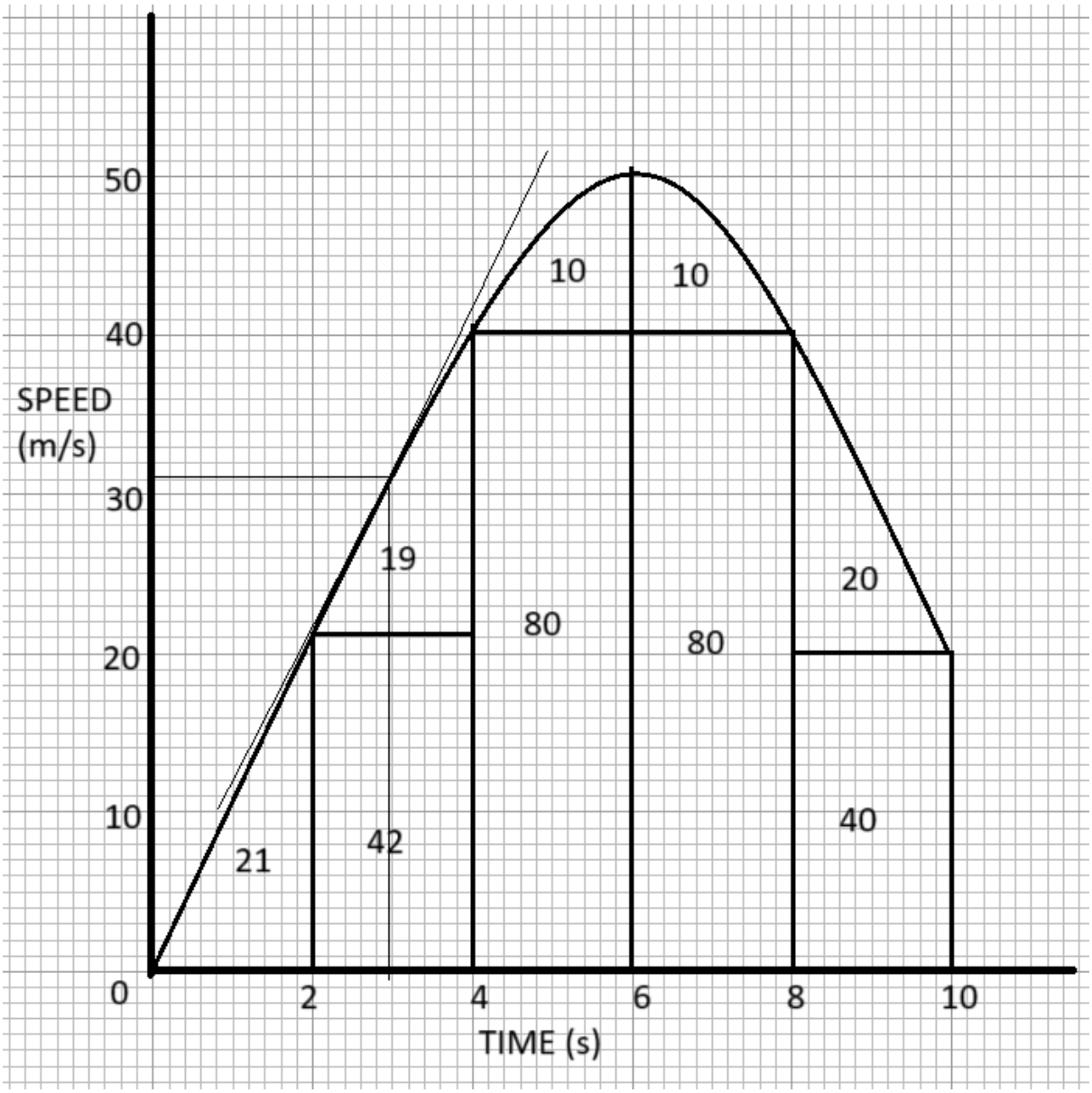
Q5



a) Area for first 3 seconds = 7.95

b) Distance travelled in first 3 seconds is 7.95 meters

Q6

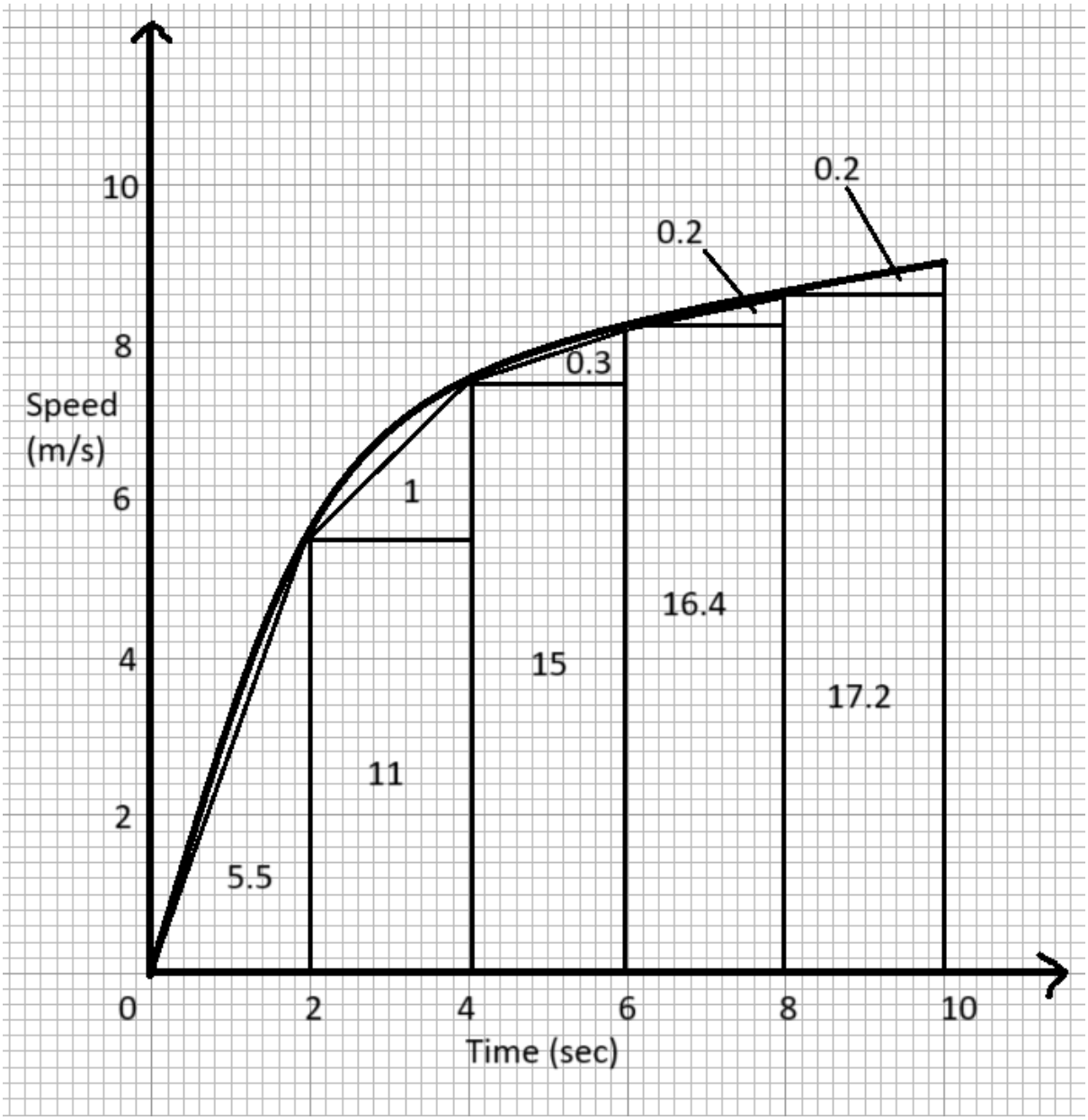


a) Work out for the accerlation when t = 3 s

21 / 3 = 7 ms $^{-2}$

b) 21 + 42 + 19 + 10 + 80 + 10 + 80 + 20 +40 = 322 m

Q7



a) 66.8

b) Under-estimate. The actual area under the curve is greater, approximation does not include shaded area above