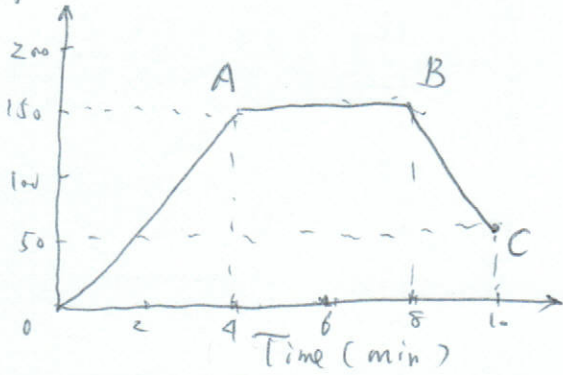


Math 9 Lesson 5 Spring Homework

D. from Home (m)

#5.



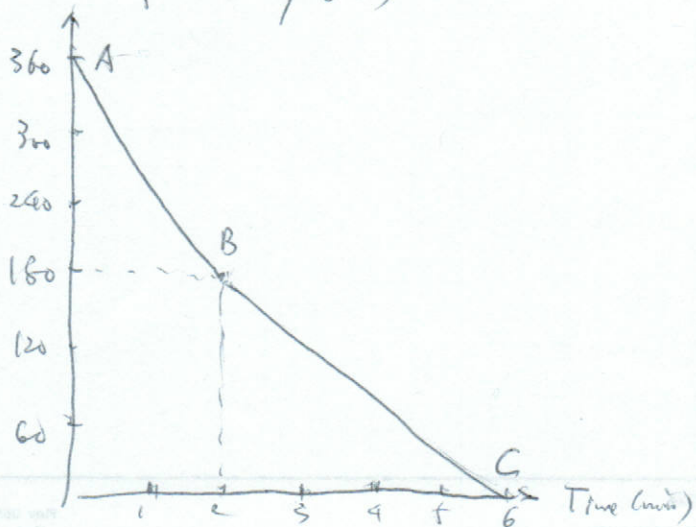
(a) She was 150 m from home during AB

- (b) (i) OA, Speed = $\frac{150}{4} = 37.5$ m/min
 (ii) OB Speed = 0 m/min
 (iii) BC Speed = $\frac{100}{2} = 50$ m/min

(c) Total Distance = $150 + 100 = 250$ m

(d) Avg speed = $\frac{250}{10} = 25$ m/min

#6. Distance from Library (m)



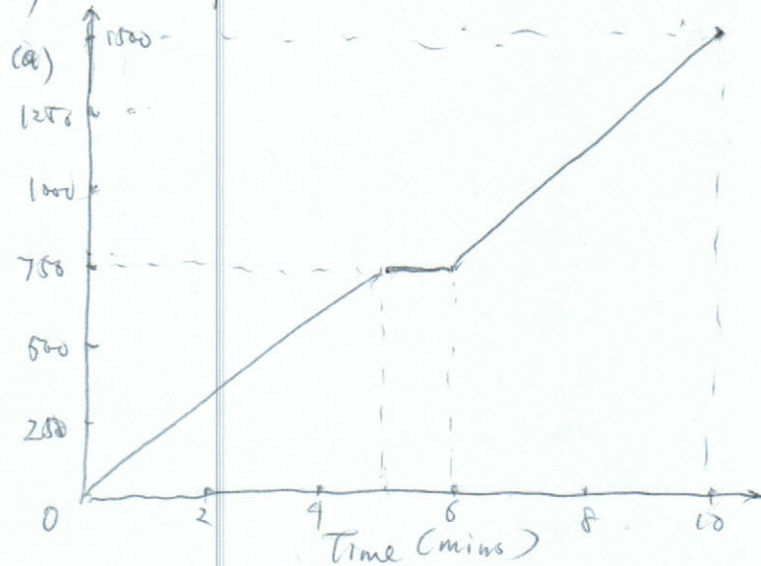
(a) from MRT to Library : 360 m

(b) (i) AB, Speed = $\frac{150}{2} = 75$ m/min

(ii) BC, Speed = $\frac{150}{4} = 37.5$ m/min

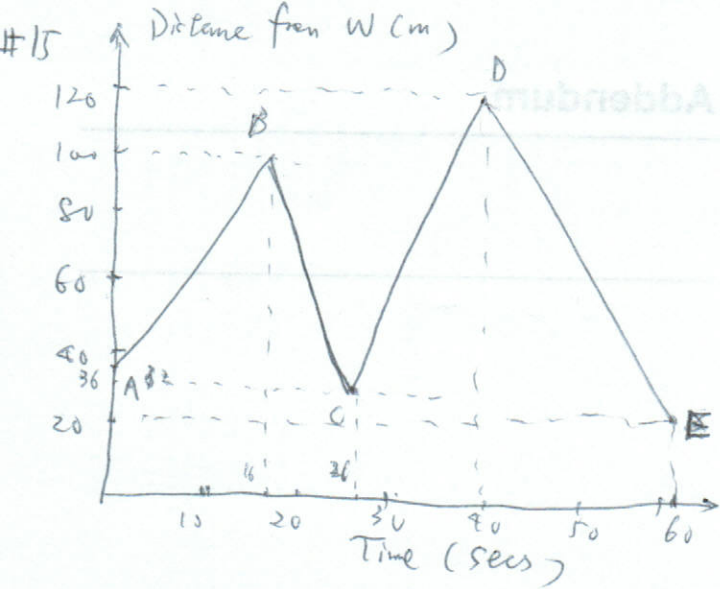
(c) Avg Speed = $\frac{360}{6} = 60$ m/min

#7 Distance from School (m)



(b) (i) first 5 mins $S = \frac{750}{5} = 150$ m/min

(ii) Last 4 min $S = \frac{750}{4} = 187.5$ m/min



(a) (i) 36 m

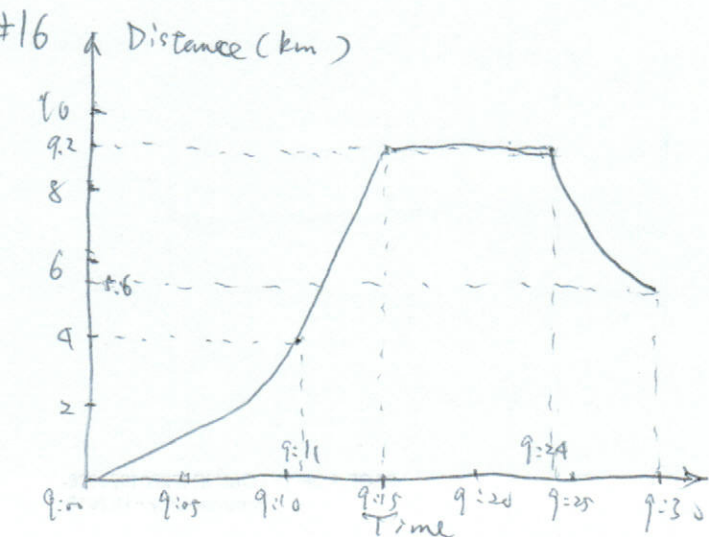
(ii) furthest : @ 40 sec, 120 m
 nearest : @ 26 sec, 32 m

(b) E in the diagram

(c) (i) In 60 secs, total distance moved :

$$(100 - 36) + (100 - 32) + (120 - 32) + 100 = 64 + 68 + 88 + 100 = 320 \text{ m}$$

(ii) Avg speed = $\frac{320}{60} = 5\frac{1}{3} \text{ m/sec}$

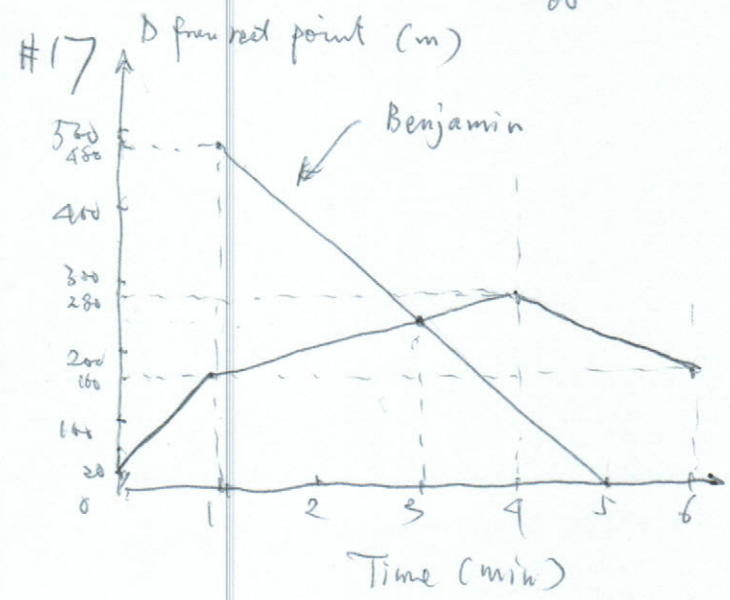


- (a) (i) 9:00 - 9:11, accelerating,
 (ii) from 9:11 to 9:15, constant speed
 (iii) 9:15 - 9:29, stop
 (iv) 9:29 - 9:30, decelerating & stop

(b) Total Distance = $9.2 + (9.2 - 5.6) = 12.8 \text{ km}$

(c) (i) Avg speed (9:00 - 9:29) = $\frac{9.2}{29} \text{ km/min}$
 $= \frac{9.2 \times 60}{29} = 23 \text{ km/h}$

(ii) Avg Speed (9:11 - 9:30) = $\frac{3.6}{19} = 27.8 \text{ km/h}$



- (a) (i) 1st minute
 (ii) Speed = $\frac{160 - 20}{1} = 140 \text{ m/min} = 2\frac{1}{3} \text{ m/s}$
 (b) Avg speed = $\frac{140 + 120 + 120}{6 \times 60} = \frac{380}{360} = 1\frac{1}{18} \text{ m/s}$
 (c) $t = \frac{480}{2} = 240(\text{s}) = 4 \text{ min}$
 (d) (i) 200 m
 (ii) 2 mins