**Summary:**

100000+ variations. Rates.

**Question:**

a) Blake can run  m in  seconds. Express this rate in

 (i) metres per second.

 (ii) kilometres per hour.

b) An active ingredientis included in a children’s medicine at a concentration of . The dosage for a baby (3-6 months) is  and the dosage for a child (9-12 years of age) is .

1. How much of the active ingredient would a baby receive?
2. How much of the active ingredient would a child receive?
3. A physician has calculated that a toddler would need to receive  of the active ingredient to be effective. What dosage (to the nearest mL) would the physician need to prescribe for the toddler?

c) A car travels at  km/h for  km and then changes its speed to  km/h for the next  kilometres. What is the average speed for the whole journey?

**Solution:**

a) i) 

 ii) 

b) i) 

 ii) 

 iii) 

c) 