NURSING CALCULATIONS

Volume Received, Running Time, Flow Rate

1. How many millilitres has a patient received if:
   a  350 mL/h of a solution is administered for 1.4 hours
   b  240 mL/h of a solution is administered for 2.7 hours
   c  480 mL/h of a solution is administered for 3.2 hours
   d  500 mL/h of a solution is administered for 1.6 hours

2. How long (in hours and minutes) will the fluid ordered below take if
   a  Patient is ordered 40 mL per hour and is to have 500 mL of 5% dextrose and 1/5 Normal Saline.
   b  Patient is ordered 30 mL per hour and is to have 500 mL of 5% dextrose and 1/5 Normal Saline.
   c  Patient is ordered 50 mL per hour and is to have 760 mL of 5% dextrose and 1/5 Normal Saline.
   d  Patient is ordered 60 mL per hour and is to have 864 mL of 5% dextrose and 1/5 Normal Saline.

3. Calculate the Flow Rate (in mL/hr) if
   a  Order is 1.2 litres over 8 hours
   b  Order is 250 mL over 3 hours
   c  Order is 1.5 litres over 12 hours
   d  Order is 1.3 litres over 8.5 hours
   e  Order is 1.4 litres over 6 hours
   f  Order is 225 mL over 3 hours
   g  Order is 1.75 litres over 5 hours
   h  Order is 1.35 litres over 8.5 hours

Answers

1  a  490 mL
   b  648 mL
   c  1536 mL
   d  80 mL

2  a  12 hrs 30 mins
   b  16 hrs 40 mins
   c  15 hrs 12 mins
   d  14 hrs 24 mins

3  a  150 mL/hr
   b  83.3 mL/hr
   c  125 mL/hr
   d  153 mL/hr
   e  233.3 mL/hr
   f  75 mL/hr
   g  350 mL/hr
   h  158.8 mL/hr