

# 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 80mL
- 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 125mL/hr
  - d 153 mL/hr
  - e 233.3 mL/hr
  - f 75 mL/hr
  - g 350 mL/hr
  - h 158.8 mL/hr

