Med/Math Practice Problem Answers

1. Answer: Yes

   350 mg / 25 mL = 14 mg/mL

   The Dilution Is Appropriate

   The Recommended Concentration Is 10 mg/mL - 40 mg/mL

2. Answer:
   18 mg divided by 10 ml = 1.8 mg/mL

3. Answer:
   B. 1,200 mg every 4 hours

200 mg	300 mg
x 30 kg	x 30 kg
6,000 mg	9,000 mg in 24 hours

   A 30 kg child can receive 6,000-9,000mg of piperacillin sodium in 24 hours
   1,200 x 6 (4 doses in 24 hours) = 7,200 mg in 24 hours

4. Answer: Yes
   Recommended range = 1,000mg – 1,500mg

5. Answer**:** Yes, the medication is within the recommended range.

   50 mg/24 hr x 20 kg = 1,000 mg/24 hours
   75 mg/24 hr x 20 kg = 1,500 mg/24 hours

   1000 mg/24 hr divided by 2 doses = 500 mg/12 hours
   1500 mg/24 hr divided by 2 doses = 750 mg/12 hours
   700 mg falls within the range

6. Answer:
   B. 400 mg every 8 hours
   30 kg x 40 mg = 1,200 mg in 24 hours
   Then divide the 24 hour dose by each interval listed in A,B,C & D

7. Answer: 50 mL/hr
   25 mL x 60 gtt/mL / 30 minutes = 1,500 / 30 = 50 mL/hr

Additional Practice Problems Answers

1. Concentration of Suspension: 250mg/5ml = 50 mg/ml
   The recommended range is 260mg to 292.5mg every 12 hours.
   The nurse will administer 5.5ml of amoxicillin every 12 hours.
   Desired = 275/50 = 5.5 ml
   Have

2. Answer: C. contact the primary care provider regarding a dose exceeding the recommended range
   DO NOT EXCEED 2 GMS IN 24 HRS
   1.1 grams x 2 = 2.2 grams

   Note: Contact the primary care provider when ordered dose exceeds or is below recommended range. Contact the pharmacist when the concentration or dilution is not within recommended range.

3. Answer: A. administer the medication at 50 mL/hr
   Dilution/concentration = 25.6mg/ml
   Recommended dose = 40mg/kg every 8 hours (16x40=640mg)
   15 min = 100ml/hr
   30 min = 50 ml/hr
   25ml x 60 = 100ml/hr
   15
   25ml x 60 = 50ml/hr
   30

4. Answer: C. 100 (50 is too low, 75 is too low, 160 is too high)

   50 x 60 = 3000 = 150 mL/hr
   20 20

   50 x 60 = 3000 = 100 mL/hr
   30 30