# Dosage calculation worksheet: Pediatric

Name: _____ Date: _____

Round each answer as the problem says. For study and exam practice, not for patient care.

1. Order: amoxicillin 40 mg/kg/day PO divided every 8 hours. The client is a 12-year-old who weighs 87 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

2. A pediatric client with a bacterial infection is prescribed an oral antibiotic. Order: amoxicillin 40 mg/kg/day PO divided every 8 hours. The client is a 3-month-old infant who weighs 15 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

3. A pediatric client with a bacterial infection is receiving an antibiotic for a serious gram-negative infection. Order: gentamicin 7.5 mg/kg/day IM divided every 8 hours. The client is a 6-year-old who weighs 55 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

4. The nurse is caring for a client who has a prescription for gentamicin 6 mg/kg/day IM divided every 8 hours. The client is an 18-month-old toddler who weighs 22 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

5. A 12-year-old client with a serious gram-negative infection is prescribed the antibiotic for the infection. Order: gentamicin 7.5 mg/kg/day IM divided every 8 hours. The client weighs 95 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

6. Order: gentamicin 7.5 mg/kg/day IM divided every 8 hours. The client is a 9-month-old infant who weighs 19 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

7. Order: gentamicin 6 mg/kg/day IM divided every 8 hours. The client is a 9-year-old who weighs 78 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

8. Order: gentamicin 7.5 mg/kg/day IM divided every 8 hours. The client is a 4-month-old infant who weighs 17 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

9. A 3-year-old client with a bacterial infection is prescribed gentamicin 7.5 mg/kg/day IM divided every 8 hours. The client weighs 34 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

10. Amoxicillin is an antibiotic commonly prescribed for children with acute otitis media. Order: amoxicillin 25 mg/kg/day PO divided every 12 hours. The client is a 4-year-old who weighs 44 lb (1 kg = 2.2 lb). Round the client's weight to the nearest tenth before calculating the dose. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

11. A child with a bacterial infection of the ear is prescribed therapy with an oral antibiotic. Order: amoxicillin 40 mg/kg/day PO divided every 8 hours. The client is an 8-year-old who weighs 24.1 kg. Available: amoxicillin oral suspension 250 mg/5 mL. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

12. The nurse is caring for a client who has a prescription for digoxin 3 mcg/kg/day PO once daily. The client is an 11-year-old who weighs 38.9 kg. The nurse has digoxin oral solution 0.05 mg/mL available. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

13. Order: digoxin 5.6 mcg/kg/day PO divided every 12 hours. The client is an 8-year-old who weighs 33 kg. Available: digoxin oral solution 0.05 mg/mL. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

14. The nurse is caring for a client who is a 10-year-old and weighs 43.3 kg. The client has a prescription for digoxin 5.6 mcg/kg/day PO divided every 12 hours. The nurse has digoxin oral solution 0.05 mg/mL available. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

15. A pediatric clinic is treating a middle-ear infection with an antibiotic. The prescription reads amoxicillin 25 mg/kg/day PO divided every 12 hours for a 9-month-old infant. The client weighs 8.6 kg. Available is amoxicillin oral suspension 125 mg/5 mL. How many mL should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

16. Order: amoxicillin 25 mg/kg/day PO divided every 12 hours. The client is a 5-year-old who weighs 15 kg. Available: amoxicillin oral suspension 125 mg/5 mL. How many mL should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

17. The nurse is caring for a client who has a prescription for amoxicillin 45 mg/kg/day PO divided every 12 hours. The client is a 4-month-old infant who weighs 6.5 kg. The nurse has amoxicillin oral suspension 250 mg/5 mL available. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

18. Order: cefdinir 7 mg/kg/dose PO every 12 hours. The client is a 12-month-old toddler who weighs 8.1 kg. Available: cefdinir oral suspension 250 mg/5 mL. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

19. A pediatric client with a bacterial infection is prescribed an oral antibiotic. Order: amoxicillin 25 mg/kg/day PO divided every 12 hours. The client is a 13-year-old who weighs 57.4 kg. Available: amoxicillin oral suspension 250 mg/5 mL. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

20. A clinic nurse is preparing a pediatric medication for a client with a bacterial infection. Order: amoxicillin 20 mg/kg/day PO divided every 8 hours. The client is a 14-year-old who weighs 60.4 kg. Available: amoxicillin oral suspension 250 mg/5 mL. How many mL should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

21. The nurse is caring for a 9-year-old client who weighs 34 kg. The unit uses the Holliday-Segar method for daily maintenance fluid, with 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

22. Using 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg, calculate the daily maintenance fluid for a 12-year-old who weighs 32 kg. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

23. Order: maintenance fluid for a 9-year-old who weighs 30 kg, using 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg. Available: the daily maintenance fluid is calculated from the weight alone, with no other supply line. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

24. The nurse is caring for a 12-year-old client who weighs 54 kg. The unit's maintenance fluid protocol uses 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

25. Order: daily maintenance fluid using 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg for a 14-year-old client who weighs 38 kg. Available: the nurse uses the weight in this order line to determine the daily total. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

26. Using 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg, calculate the daily maintenance fluid for a 7-year-old who weighs 28 kg. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

27. Order: maintenance fluid for a 10-year-old who weighs 45 kg, using 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg. Available: the daily maintenance fluid volume calculated from this rule for the child. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

28. The nurse is caring for a 14-year-old client who weighs 72 kg. The nurse uses the following maintenance fluid rule: 100 mL/kg/day for the first 10 kg, 50 mL/kg/day for the next 10 kg, and 20 mL/kg/day for each kg above 20 kg. How many mL/day does the child need? Record your answer using a whole number.

Answer: _____

29. The nurse is caring for a client who has a prescription for amoxicillin 25 mg/kg/day PO divided every 12 hours. The client is an 18-month-old toddler who weighs 10.6 kg. How many mg should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

30. Order: amoxicillin 25 mg/kg/day PO divided every 12 hours. The client is an 18-month-old toddler who weighs 8.8 kg. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

31. Order: amoxicillin 45 mg/kg/day PO divided every 12 hours. The client is a 15-month-old toddler who weighs 10.6 kg. How many mg should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

32. A pediatric unit is caring for a client who is receiving ondansetron to prevent nausea and vomiting after a procedure. Order: ondansetron 0.1 mg/kg/dose IV once. The client is a 9-month-old infant who weighs 8.5 kg. How many mg should the nurse administer per dose? Record your answer using 2 decimal places.

Answer: _____

33. Order: azithromycin 12 mg/kg/dose PO daily. The client is an 11-year-old who weighs 39.9 kg. How many mg should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

34. Order: acyclovir 20 mg/kg/dose IV every 8 hours. The client is a 7-year-old who weighs 25 kg. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

35. The nurse is caring for a client who is a 7-year-old and weighs 20.6 kg. The nurse has an order for amoxicillin 45 mg/kg/day PO divided every 12 hours. How many mg should the nurse administer per dose? Record your answer using 1 decimal place.

Answer: _____

36. A 3-month-old infant with a suspected bacterial infection is admitted to the pediatric unit. The provider has written an order for ceftriaxone 100 mg/kg/dose IM once. The infant weighs 5.2 kg. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

37. Order: azithromycin 10 mg/kg/dose PO daily. The client is a 12-year-old who weighs 32.8 kg. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

38. The nurse is caring for a client who has a prescription for acyclovir 10 mg/kg/dose IV every 8 hours. The client is an 18-month-old toddler who weighs 10.4 kg. How many mg should the nurse administer per dose? Record your answer using a whole number.

Answer: _____

More practice: https://doserightrn.com/worksheets/ and the DoseRightRN app.

# Answer key

**1. 526.67 mg**

kg = 87 ÷ 2.2 = 39.55 kg; round the weight to the nearest tenth as instructed: 39.5 kg.
Daily dose = 40 mg/kg/day × 39.5 kg = 1,580 mg/day.
Divided every 8 hours is 3 doses a day: 1,580 ÷ 3 = 526.6667 mg per dose.
Round to the nearest hundredth: 526.67 mg.

**2. 90.67 mg**

kg = 15 ÷ 2.2 = 6.82 kg; round the weight to the nearest tenth as instructed: 6.8 kg.
Daily dose = 40 mg/kg/day × 6.8 kg = 272 mg/day.
Divided every 8 hours is 3 doses a day: 272 ÷ 3 = 90.6667 mg per dose.
Round to the nearest hundredth: 90.67 mg.

**3. 62.5 mg**

kg = 55 ÷ 2.2 = 25 kg; round the weight to the nearest tenth as instructed: 25 kg.
Daily dose = 7.5 mg/kg/day × 25 kg = 187.5 mg/day.
Divided every 8 hours is 3 doses a day: 187.5 ÷ 3 = 62.5 mg per dose.
62.5 mg is exact, so no rounding is needed.

**4. 20 mg**

kg = 22 ÷ 2.2 = 10 kg; round the weight to the nearest tenth as instructed: 10 kg.
Daily dose = 6 mg/kg/day × 10 kg = 60 mg/day.
Divided every 8 hours is 3 doses a day: 60 ÷ 3 = 20 mg per dose.
20 mg is exact, so no rounding is needed.

**5. 108 mg**

kg = 95 ÷ 2.2 = 43.18 kg; round the weight to the nearest tenth as instructed: 43.2 kg.
Daily dose = 7.5 mg/kg/day × 43.2 kg = 324 mg/day.
Divided every 8 hours is 3 doses a day: 324 ÷ 3 = 108 mg per dose.
108 mg is exact, so no rounding is needed.

**6. 21.5 mg**

kg = 19 ÷ 2.2 = 8.64 kg; round the weight to the nearest tenth as instructed: 8.6 kg.
Daily dose = 7.5 mg/kg/day × 8.6 kg = 64.5 mg/day.
Divided every 8 hours is 3 doses a day: 64.5 ÷ 3 = 21.5 mg per dose.
21.5 mg is exact, so no rounding is needed.

**7. 71 mg**

kg = 78 ÷ 2.2 = 35.45 kg; round the weight to the nearest tenth as instructed: 35.5 kg.
Daily dose = 6 mg/kg/day × 35.5 kg = 213 mg/day.
Divided every 8 hours is 3 doses a day: 213 ÷ 3 = 71 mg per dose.
71 mg is exact, so no rounding is needed.

**8. 19.25 mg**

kg = 17 ÷ 2.2 = 7.73 kg; round the weight to the nearest tenth as instructed: 7.7 kg.
Daily dose = 7.5 mg/kg/day × 7.7 kg = 57.75 mg/day.
Divided every 8 hours is 3 doses a day: 57.75 ÷ 3 = 19.25 mg per dose.

19.25 mg is exact, so no rounding is needed.

**9. 38.75 mg**

kg = 34 ÷ 2.2 = 15.45 kg; round the weight to the nearest tenth as instructed: 15.5 kg.
Daily dose = 7.5 mg/kg/day × 15.5 kg = 116.25 mg/day.
Divided every 8 hours is 3 doses a day: 116.25 ÷ 3 = 38.75 mg per dose.
38.75 mg is exact, so no rounding is needed.

**10. 250 mg**

kg = 44 ÷ 2.2 = 20 kg; round the weight to the nearest tenth as instructed: 20 kg.
Daily dose = 25 mg/kg/day × 20 kg = 500 mg/day.
Divided every 12 hours is 2 doses a day: 500 ÷ 2 = 250 mg per dose.
250 mg is exact, so no rounding is needed.

**11. 6.43 mL**

Daily dose = 40 mg/kg/day × 24.1 kg = 964 mg/day.
Divided every 8 hours is 3 doses a day: 964 ÷ 3 = 321.3333 mg per dose.
mL = 321.3333 mg ÷ 250 mg × 5 mL = 6.4267 mL.
Round to the nearest hundredth: 6.43 mL.

**12. 2.33 mL**

Daily dose = 3 mcg/kg/day × 38.9 kg = 116.7 mcg/day.
Once daily is 1 dose a day: 116.7 mcg per dose.
mL = 0.1167 mg ÷ 0.05 mg × 1 mL = 2.334 mL.
Round to the nearest hundredth: 2.33 mL.

**13. 1.85 mL**

Daily dose = 5.6 mcg/kg/day × 33 kg = 184.8 mcg/day.
Divided every 12 hours is 2 doses a day: 184.8 ÷ 2 = 92.4 mcg per dose.
mL = 0.0924 mg ÷ 0.05 mg × 1 mL = 1.848 mL.
Round to the nearest hundredth: 1.85 mL.

**14. 2.42 mL**

Daily dose = 5.6 mcg/kg/day × 43.3 kg = 242.48 mcg/day.
Divided every 12 hours is 2 doses a day: 242.48 ÷ 2 = 121.24 mcg per dose.
mL = 0.1212 mg ÷ 0.05 mg × 1 mL = 2.4248 mL.
Round to the nearest hundredth: 2.42 mL.

**15. 4.3 mL**

Daily dose = 25 mg/kg/day × 8.6 kg = 215 mg/day.
Divided every 12 hours is 2 doses a day: 215 ÷ 2 = 107.5 mg per dose.
mL = 107.5 mg ÷ 125 mg × 5 mL = 4.3 mL.
4.3 mL is exact, so no rounding is needed.

**16. 7.5 mL**

Daily dose = 25 mg/kg/day × 15 kg = 375 mg/day.
Divided every 12 hours is 2 doses a day: 375 ÷ 2 = 187.5 mg per dose.
mL = 187.5 mg ÷ 125 mg × 5 mL = 7.5 mL.
7.5 mL is exact, so no rounding is needed.

**17. 2.93 mL**

Daily dose = 45 mg/kg/day × 6.5 kg = 292.5 mg/day.
Divided every 12 hours is 2 doses a day: 292.5 ÷ 2 = 146.25 mg per dose.
mL = 146.25 mg ÷ 250 mg × 5 mL = 2.925 mL.
Round to the nearest hundredth: 2.93 mL.

**18. 1.13 mL**

Dose = 7 mg/kg × 8.1 kg = 56.7 mg.
mL = 56.7 mg ÷ 250 mg × 5 mL = 1.134 mL.
Round to the nearest hundredth: 1.13 mL.

**19. 14.35 mL**

Daily dose = 25 mg/kg/day × 57.4 kg = 1,435 mg/day.
Divided every 12 hours is 2 doses a day: 1,435 ÷ 2 = 717.5 mg per dose.
mL = 717.5 mg ÷ 250 mg × 5 mL = 14.35 mL.
14.35 mL is exact, so no rounding is needed.

**20. 8.05 mL**

Daily dose = 20 mg/kg/day × 60.4 kg = 1,208 mg/day.
Divided every 8 hours is 3 doses a day: 1,208 ÷ 3 = 402.6667 mg per dose.
mL = 402.6667 mg ÷ 250 mg × 5 mL = 8.0533 mL.
Round to the nearest hundredth: 8.05 mL.

**21. 1,780 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 14 kg: 14 × 20 = 280 mL.
Total = 1,780 mL/day.
1,780 mL/day is exact, so no rounding is needed.

**22. 1,740 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 12 kg: 12 × 20 = 240 mL.
Total = 1,740 mL/day.
1,740 mL/day is exact, so no rounding is needed.

**23. 1,700 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 10 kg: 10 × 20 = 200 mL.
Total = 1,700 mL/day.
1,700 mL/day is exact, so no rounding is needed.

**24. 2,180 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 34 kg: 34 × 20 = 680 mL.
Total = 2,180 mL/day.

2,180 mL/day is exact, so no rounding is needed.

**25. 1,860 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 18 kg: 18 × 20 = 360 mL.
Total = 1,860 mL/day.
1,860 mL/day is exact, so no rounding is needed.

**26. 1,660 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 8 kg: 8 × 20 = 160 mL.
Total = 1,660 mL/day.
1,660 mL/day is exact, so no rounding is needed.

**27. 2,000 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 25 kg: 25 × 20 = 500 mL.
Total = 2,000 mL/day.
2,000 mL/day is exact, so no rounding is needed.

**28. 2,540 mL/day**

First 10 kg: 10 × 100 = 1,000 mL.
Next 10 kg: 10 × 50 = 500 mL.
Remaining 52 kg: 52 × 20 = 1,040 mL.
Total = 2,540 mL/day.
2,540 mL/day is exact, so no rounding is needed.

**29. 132.5 mg**

Daily dose = 25 mg/kg/day × 10.6 kg = 265 mg/day.
Divided every 12 hours is 2 doses a day: 265 ÷ 2 = 132.5 mg per dose.
132.5 mg is exact, so no rounding is needed.

**30. 110 mg**

Daily dose = 25 mg/kg/day × 8.8 kg = 220 mg/day.
Divided every 12 hours is 2 doses a day: 220 ÷ 2 = 110 mg per dose.
110 mg is exact, so no rounding is needed.

**31. 238.5 mg**

Daily dose = 45 mg/kg/day × 10.6 kg = 477 mg/day.
Divided every 12 hours is 2 doses a day: 477 ÷ 2 = 238.5 mg per dose.
238.5 mg is exact, so no rounding is needed.

**32. 0.85 mg**

Dose = 0.1 mg/kg × 8.5 kg = 0.85 mg.
0.85 mg is exact, so no rounding is needed.

**33. 478.8 mg**

Dose = 12 mg/kg × 39.9 kg = 478.8 mg.
478.8 mg is exact, so no rounding is needed.

**34. 500 mg**

Dose = 20 mg/kg × 25 kg = 500 mg.
500 mg is exact, so no rounding is needed.

**35. 463.5 mg**

Daily dose = 45 mg/kg/day × 20.6 kg = 927 mg/day.
Divided every 12 hours is 2 doses a day: 927 ÷ 2 = 463.5 mg per dose.
463.5 mg is exact, so no rounding is needed.

**36. 520 mg**

Dose = 100 mg/kg × 5.2 kg = 520 mg.
520 mg is exact, so no rounding is needed.

**37. 328 mg**

Dose = 10 mg/kg × 32.8 kg = 328 mg.
328 mg is exact, so no rounding is needed.

**38. 104 mg**

Dose = 10 mg/kg × 10.4 kg = 104 mg.
104 mg is exact, so no rounding is needed.