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Medication Calculations Worksheet #1

1. 1 tsp = 5 mL
   10 mg x 12 tsp = **120 mg**

2. 10 mcg x 80 kg = 800 mcg
   800 mcg x 15 min = **12000 mcg**

3. 35 lbs ÷ 2.2 = 15.9 kg
   40 mg x 15.9 kg = 636 mg / 24 hrs
   636 mg ÷ 6 doses = **106 mg**

4. 36.3 lbs ÷ 2.2 = 16.5 kg
   1.5 mcg ÷ 1000 = 0.0015 mg x 16.5 kg = **0.02 mg**

5. 1 tsp = 5 mL
   180 mg x 21 tsp = **3780 mg**

6. Dose: 375 mg tid (3x)
   375 mg x 3 = 1125 mg ÷ 1000 = **1.1 g**

7. D: 750 mg
   V: 2.5 mL
   H: 1 g

$$\frac{2.5\,mL \times 1\,g \times 750\,mg}{1\,g \times 1000\,mg \times 1} = \textbf{1.9 mL per dose}$$

8. D: 7.5 mg
V: 1 tab
H: 5 mg

$\frac{(7.5\text{mg})(1\text{tab})}{5(5\text{mg})} = \boxed{1.5 \text{ tab per dose}}$

9 D: 125 mg
V: 5 mL
H: 250 mg

$\frac{(125\text{mg})(5\text{mL})}{250\text{mg}} = \boxed{\begin{array}{c}2.5\text{mL per dose} \\ 7.5\text{mL daily}\end{array}}$

10. D: 100 mg
V: 1 tab
H: 0.1 g

$\frac{1\text{tab} \times 1\text{g} \times 100\text{mg}}{0.1\text{g} \times 1000\text{mg} \times 1} = \boxed{1\text{tab}}$

11. 1000 mL = 1L
1 oz = 30 mL
128 x 30 mL = 3840 mL ÷ 1000 mL = $\boxed{4\text{L}}$

12 D: 2500 units
V: 250 mL
H: 20,000 units

$\frac{(2500\text{units})(250\text{mL})}{20{,}000\text{units}} = \boxed{31.3\text{ mL/hr}}$

13. 300,000 units X 2.5 mL = $\boxed{750{,}000\text{ units}}$

14. D: 0.15 mg
V: 1 mL
H: 0.4 mg

$\frac{(0.15\text{mg})(1\text{mL})}{0.4\text{mg}} = \boxed{0.38\text{ mL}}$

15. D: 0.4mg
V: 10mL
H: 5mg

$\frac{(0.4\text{mg})(10\text{mL})}{5\text{mg}} = \boxed{0.8\text{mL}}$

16. 130 lbs ÷ 2.2 = 59.0909091 kg

25mg × 59.0909091 = **1477.3mg minimum**

50mg × 59.0909091 = **2954.5 mg maximum**

17. D: 150mg
V: 2 mL
H: 300mg

$\frac{(150\text{mg})(2\text{mL})}{300\text{mg}} = 1\text{mL}$

1mL × 4 = 4mL

4mL BUT! Nurse should not administer because it is the wrong route

18. D: 10mg
V: 3mL
H: 0.5g = 500mg

$\frac{3\text{mL} \times 1\text{g} \times 10\text{mg}}{0.5\text{g} \times 1000\text{mg} \times 1} = \frac{30}{500} = \boxed{0.06\text{mL}}$

19. 48 lbs ÷ 2.2 = 21.8 kg

5mg × 21.8 kg = 109 mg ÷ 2 doses = **54.5 mg per dose**

20. 187 lbs ÷ 2.2 = 85 kg × 1mg = 85mg

D: 85mg
V: 0.3mL
H: 30 mg

$\frac{(85\text{mg})(0.3\text{mL})}{30\text{mg}} = \boxed{0.85\text{mL}}$

21. 1350g ÷ 1000 = 1.35

100mg × 1.35 kg = **135mg**

22. 50 mg × 1000 = 50,000 mcg

50,000 mcg · 250 mL = **200 mcg**

23. D: 125 mg
V: 7.4 mL
H: 1 g

$$\frac{7.4\text{ mL} \times 1\text{ g} \times 125\text{ mg}}{1\text{ g} \times 1000\text{ mg} \times 1} = \frac{925\text{ mL}}{1000} = \boxed{0.9\text{ mL}}$$

24. 8 mcg × 7.2 kg = 57.6 mcg daily ÷ 2 = **28.8 mcg per dose**

25. D: 0.6 mg
V: 1 mL
H: 0.4 mg

$$\frac{(0.6\text{ mg})(1\text{ mL})}{0.4\text{ mg}} = \boxed{1.5\text{ mL}}$$