



MEDMATHMINDSET PROVIDER MATH ATLAS

Medical Assisting math, one domain at a time.

A focused, printable reference built from MedMathMindset's current provider-specific quantitative blueprint.

BLUEPRINT SNAPSHOT

12 domains | 100% total instructional weight

Domains are ordered from highest to lowest MedMathMindset instructional weight. These are MedMathMindset training weights, not official credentialing-body exam percentages unless an official source explicitly states otherwise.

USE IT THREE WAYS

Teach | Review | Print

Use the worked examples as a quick class reference, learner review sheet, or printable teaching aid.

WHAT THE ATLAS ADDS

Example + reasoning + check

Each domain pairs one worked example with the setup, answer, and a reasonableness check.

DOMAINS IN THIS ATLAS

1. Medication Dose Calculations 16%

3. Unit Conversions 12%

5. Percentages 8%

7. Whole Number Operations 8%

9. Fractions / Decimals 7%

11. Nutrition / Metabolism Math 4%

2. Ratios / Proportions 12%

4. Dimensional Analysis 10%

6. Weight-Based Dosing 8%

8. CNA/CMA Clinical Support Math 7%

10. Intake / Output 5%

12. Clinical Index / Score Interpretation 3%

IMPORTANT SCOPE NOTE

Educational examples only. This atlas does not replace local protocols, medication references, device instructions, scope-of-practice requirements, official credentialing test plans, or clinical judgment.



DOMAIN 1 OF 12

Medication Dose Calculations

16%
MMM weight

Medication Dose Calculations is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

Available: 10 mg in 2 mL. The ordered dose is 30 mg.
How many mL will deliver the ordered dose?

SETUP / REASONING

$$30 \times 2 / 10 = 6 \text{ mL.}$$

ANSWER**6 mL****QUICK CHECK**

At a fixed concentration, a larger desired dose requires a proportionally larger volume.

DOMAIN 2 OF 12

Ratios / Proportions

12%
MMM weight

Ratios / Proportions is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

A 2:5 relationship is maintained. If the second quantity becomes 20, what is the first quantity?

SETUP / REASONING

$$2/5 = x/20; x = 8.$$

ANSWER**8****QUICK CHECK**

Cross-products should agree when the two ratios are truly equivalent.



DOMAIN 3 OF 12

Unit Conversions

12%
MMM weight

Unit Conversions is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

Convert 750 mg to g.

SETUP / REASONING

Use the 1000:1 metric relationship; the result is 0.75 g.

ANSWER**0.75 g****QUICK CHECK**

Confirm the direction of the conversion and that the final unit is exactly the requested unit.

DOMAIN 4 OF 12

Dimensional Analysis

10%
MMM weight

Dimensional Analysis is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

Available: 10 mg in 2 mL. The ordered dose is 30 mg.
How many mL will deliver the ordered dose?

SETUP / REASONING

$$? \text{ mL} = \frac{2 \text{ mL}}{10 \text{ mg}} \times \frac{30 \text{ mg}}{1} = 6 \text{ mL}$$

ANSWER**6 mL****QUICK CHECK**

Unwanted units should cancel cleanly, leaving only the requested final unit.



DOMAIN 5 OF 12

Percentages

8%

MMM weight

Percentages is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

What is 25% of 80?

SETUP / REASONING

$25\% \times 80 = 20$.

ANSWER

20

QUICK CHECK

The result should be the stated fraction of the whole; compare its magnitude with 0% and 100%.

DOMAIN 6 OF 12

Weight-Based Dosing

8%

MMM weight

Weight-Based Dosing is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

A 70 kg patient is ordered 0.1 mg/kg. What dose is ordered?

SETUP / REASONING

$70 \times 0.1 = 7 \text{ mg}$.

ANSWER

7 mg

QUICK CHECK

Check that the weight unit matches the dose unit before multiplying.



DOMAIN 7 OF 12

Whole Number Operations

8%

MMM weight

Whole Number Operations is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

A supply area starts with 24 counted items, adds 18, then uses 11. How many remain?

SETUP / REASONING

$$24 + 18 - 11 = 31.$$

ANSWER**31 items****QUICK CHECK**

Reconcile the starting quantity, additions, and use; the ending count should fit the story.

DOMAIN 8 OF 12

CNA/CMA Clinical Support Math

7%

MMM weight

CNA/CMA Clinical Support Math is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

While checking a patient's pulse, you count 18 heartbeats in 15 seconds. What is the pulse rate in beats per minute?

SETUP / REASONING

Multiply by 4 to scale the heartbeat count to one minute: 72 beats/min.

ANSWER**72 beats/min****QUICK CHECK**

Scale the observed count to a full minute using the correct time multiplier.



DOMAIN 9 OF 12

Fractions / Decimals

7%
MMM weight

Fractions / Decimals is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

Write $\frac{3}{4}$ as a decimal.

SETUP / REASONING

$3 / 4 = 0.75$.

ANSWER

0.75

QUICK CHECK

For a proper fraction, the decimal should fall between 0 and 1.

DOMAIN 10 OF 12

Intake / Output

5%
MMM weight

Intake / Output is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

Intake is 240 mL plus 120 mL. Output is 150 mL. What is the net fluid balance?

SETUP / REASONING

Total intake is 360 mL; subtract 150 mL to get 210 mL.

ANSWER

210 mL

QUICK CHECK

Add all intake first, then subtract output; retain the sign because positive and negative balances mean different things.



DOMAIN 11 OF 12

Nutrition / Metabolism Math

4%
MMM weight

Nutrition / Metabolism Math is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

A nutrient provides about 4 kcal per gram. How many kcal are provided by 25 g?

SETUP / REASONING

$25 \times 4 = 100$ kcal.

ANSWER

100 kcal

QUICK CHECK

Energy should scale directly with grams when kcal per gram is fixed.

DOMAIN 12 OF 12

Clinical Index / Score Interpretation

3%
MMM weight

Clinical Index / Score Interpretation is included because it matches expected quantitative work for this provider level. CMA scope emphasizes ambulatory-clinic measurement, oral/injectable medication math, conversions, and clinical support-not IV drip-rate management.

EXAMPLE

24 events occur during 6 hours. What is the event index per hour?

SETUP / REASONING

$24 / 6 = 4$ events/hr.

ANSWER

4 events/hr

QUICK CHECK

An index is a rate: confirm both the numerator and the time/exposure denominator.

REFRESH PRINTED COPIES PERIODICALLY

Provider scope and MedMathMindset instructional weighting may change as the canonical provider-domain layer is updated.