



# Medical Math



<b>Date</b>	Friday, February 16, 2024	<b>Orientation Time</b>	8:00am Closed to instructors
<b>Location</b>	WCSCC 518 W. Prospect St. Smithville, OH 44677	<b>Contest Time</b>	Immediately following orientation (Contest closed to instructors)
<b>Scope of Contest</b>	Competitors will demonstrate their ability to solve math problems that deal with the following areas: <ul style="list-style-type: none"><li>• Measurements including vital signs, temperature conversions, and height and weight</li><li>• Metric and household measurements</li><li>• Conversions</li><li>• Ratio and Proportion</li><li>• Percentage</li><li>• Intake and Output</li><li>• Roman numerals</li><li>• Dosage calculations</li><li>○ The test will contain 50 problems that will evaluate competitors' problem-solving skills, as well as, their mathematical ability.</li><li>○ The competitors will have two hours (120 minutes) to complete the test. No bonus points are given for early completion of the test, and no competitor will be allowed to enter or leave testing site during testing. If finished before time limit, contestant may raise hand to be excused. Test and scratch paper will be collected.</li><li>○ All items listed in the appendix attached to this page are suggested references. This is just a basic reference of information that may be required for the competition. <b>They are to be used as a reference <i>prior to competition</i>, and are NOT allowed in the competition area.</b></li></ul>		
<b>Testing</b>	Yes		
<b>Eligibility</b>	1 contestant for every 500 paid members		
<b>Clothing</b>	School Uniform: Professional attire worn in the classroom such as a criminal justice uniform, chef attire, health scrubs, or cosmetology scrubs with all identifiers covered. This includes shoes. <b>OR</b> Business Casual: Polo or other collared shirt and khakis or dress pants. NO JEANS. School logos, contestant name, or other identifier on shirt must be covered.		
<b>Provided by Contestant</b>	<ul style="list-style-type: none"><li>• Professional Resumé – Typed Hardcopy</li><li>• Emergency Medical Forms (Contestants must have this to compete)</li><li>• Two #2 pencils (sharpened) or mechanical pencils and erasers</li><li>• Basic hand-held calculator (no fraction key or graphing calculators permitted) Contestants may not use a cell phone as a calculator!</li><li>• No smart watches, earbuds, and/or cell phones</li></ul>		

Appendix	Term	Abbreviation	Conversion Chart	
	millimeter	mm	<b>Length</b> 1 meter = 100 centimeters = 1,000 millimeters 10 millimeters = 1 centimeter	
	centimeter	cm		
	meter	m		
	foot/feet	ft		
	inch	in		
	gram	G		<b>Weight</b> 1 gram = 1,000 milligrams 1 milligram = 1,000 micrograms 1 kilogram = 1,000 grams 1 grain = 60 milligrams
	milligram	mg		
	microgram	mcg		
	kilogram	kg		<b>Volume for Solids</b> 1,000 cubic millimeters = 1 cubic centimeter 1,000 cubic centimeters = 1 cubic decimeter 1,000 cubic decimeters = 1 cubic meter
	pound	lb		
	ounce	oz		
	degrees Fahrenheit	°F	<b>Volume for Fluids</b> 1 liter = 1,000 milliliters 1 milliliter = 1 cubic centimeter 10 centiliters = 1 deciliter 10 deciliters = 1 liter	
	degrees Celsius (Centigrade)	°C		
	cubic centimeter	cc		
	milliliter	ml or mL		
	liter	L		
	unit	U		
	pint	pt		
	quart	qt		
	gallon	gal		
	tablespoon	tbsp		
	teaspoon	tsp	<b>Weight Conversion</b> 1 kilogram = 2.2 pounds 1 pound = 16 ounces 1 ounce = 0.028 kilograms	
	drop or drops	gtt or gtts		
	minim	minim		
	dram	dr	<b>Temperature Conversion</b> °C = (°F-32) 5/9 or 0.5556 °F = (°C) 9/5 or 1.8 + 32	
	milliequivalent	mEq		
	grain	gr		
	intravenous	IV	<b>Metric/Household Equivalents</b> (Note: 1 cc = 1 mL) 1 cc or 1 mL      15 gtts (drops) 5 mL or cc      1 tsp (teaspoon) 15 mL or cc      1 tbsp (tablespoon) 30 mL or cc      1 oz. (ounce) 240 mL or cc      1 cup (8 oz.) 500 mL or cc      1 pt (pint - 16 ounces) 1,000 mL or cc      1 qt (quart) (32 ounces) 1 meter      39.37 inches (3.281 feet) 0.914 meters      3 feet (1 yard) 0.3048 meters      12 inches (1 foot) 2.54 centimeters      1 inch	
	tablet	tab		
	capsule	cap		
	suspension	susp		
	intake and output	I & O		