

FTC Embedded Mathematics Topics Table I

ID #	Topic	Show-Me Standards	MO Grade Level Expectations	NCTM Standard
1	Integers			
1a	Order of Operation	MA1, MA5	N2B9,N2C9	2A
1b	Basic operations (+, -, *, /)	MA1, MA5	N2B8,N3C8	2A,3A
1c	Word Problems	MA1, MA5,G3-4	N2D10,N2D9	2A,3A,3B,18A,18B,18C,18D
1d	Calculator Operations	MA1, MA5	N2D10,N3C9	2A,3A,3B,18A,18B,18C,18D
1e	Personal/Business Finance	MA1, MA5, G4-8,G3-8,	N2D10,N3B9,N3D10	20A,20B,22A,22B,22C
2	Fractions, Decimals, and percent			
2a	Basic operations decimals	MA1, MA5	N2B6,N2B7,N2B8,N2C9	2A,3A
2b	Basic operations fractions	MA1, MA5	N2B6,N2B7,N2B8,N2C9	2A,3A
2c	Conversions (f – d) (d- f) (f, d - %) (% - f, d)	MA1, MA5	N2B6,N2B7,N2B8N2C9,N1B5,N1B6	2A,3B
2d	Estimations	MA1, MA5	N3D12,N3D8	3B
2e	Applications (Personal/business finance)	MA1, MA5, G4-8,G3-8,	N2B6,N2B7,N2D10,N3D12	2A,3A,3B,18A,18B,18C,18D,20A,20B,22A,22B,22C
3	Exponents, Square Roots, Scientific Notation			
3a	Basic operations	MA1, MA5	N1C8,N1C10,N2B9,N2C10,N1C7	1A
3b	Word Problems	MA1, MA5	N1C8,N1C10,N2B9,N2C10,N1C7	1A,18B,18C,18D
3c	Calculator Operations	MA1, MA5	N1C8,N1C10,N2B9,N2C10,N1C7	1A,18B,18C,18D
4	Ratio and Proportion			
4a	Write and interpret	MA5, MA6	N3E10,N3E8,N2D9	2A,3A
4d	Basic operations	MA5, MA6	N3E10,N3E8,N2D9	2A,3A
4c	Applications	MA5, MA6,G3-4	N3E10,N3E8,N2D9	2A,3A,20A,20B
4d	Calculator	MA5, MA6	N3E10,N3E8,N2D9	2A,3A,20A,20B
5	Statistics			
5a	Measures of central tendency (mean, median, mode)	MA3,G1-5	D1A10,D2A6,D2A9	14E,15A
5b	Graphs and charts	MA3,G1-8	D1C10,D3A9	14C,14D
5c	Creation	MA3,G1-8	D1C10,D2C9,D2B8	14A,14B,14C,14D,14E
5d	Interpretation/misinterpretation	MA3, MA6,G1-8,G1-5	D2A10,D2B10,D3B12	14,15,16 ALL
5e	Measures of variance (range, standard deviation, interpretation)	MA3,G1-8	D3A10,D3B12,D2A8	14B,14E,15A
6	Basic algebra			
6a	Evaluate expressions	MA1,MA2,MA4	N2C8,N2C9,A2B7	4A,5A
6b	Equations	MA1,MA2,MA4	N2C10, A2A10,A2C9	4A,4B,5B
6c	Formulas	MA1,MA2,MA4	N2C10, A2A10,A2C9	4A,4B,5B,5E
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6d	Personal/Business Finance	MA1,MA2,MA4,G3-8,G4-8	N2C10, A2A10,A2C9	4A,4B,5B,5C,5E
6e	Word problems	MA1,MA2,MA4	N2C10,A2A10,A2C9,A3A10	4A,4B,5B,5C,5E

7	Basic Geometry			
7a	Area, perimeter, volume, surface area	MA2	G1A8,G1B9,G1B10	5A,5C,8A
7b	Right triangles (Pythagoras & Trigonometry)	MA2,MA4	G1A9,G1A11,G2A8,G4B10	8D,10A
7c	Similar and congruent figures	MA2	G1A9,G1B8,G3B8	8B
7d	Angle relationships	MA2	G1A9,M1A6	8A,8B
7e	Circle geometry	MA2	G2A9,G1A8,M2C6,M2C7,M2C8,M2C9	8A,8B
7f	Word problems	MA2,MA4,G3-4	G1B9,G2A9,G1A8,M2C6,M2C7,M2C8,G4A10	8A,8B,8D,11A
8	Units of measure			
8a	Conversion within systems	MA1,MA2	M1A5,M1B5,M2E5,M2E6,M2E7	12A
8b	Conversion between systems	MA1,MA2	M1A5,M1B5,M2E5,M2E6,M2E7	12A
8c	Reading tools of measurement	MA1,MA2	M1A5,M1B5	12A
8d	Measurement	MA1,MA2,G3-4	M1A7,M1C7	12A,13A,13D,18A,22A
8e	Accuracy, precision, tolerance	MA1,MA2	M2D10	13A
8f	Estimation	MA1,MA2,G3-8	N3D10,M2A6,M2D10,	12A,13A,13D,18A,22A