New York State Education Department

Education - P - 12

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2010 Mathematics Tests Standard and Performance Indicator Map with Answer Key
Grade 7

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1					
1	Multiple Choice	1	Measurement	7.M04 Convert mass within a given system	C
2	Multiple Choice	1	Number Sense and Operations	7.N13 Add and subtract two integers (with and without the use of a number line)	A
3	Multiple Choice	1	Statistics and Probability	7.S04 Calculate the range for a given set of data	B
4	Multiple Choice	1	Algebra	7.A03 Identify a polynomial as an algebraic expression containing one or more terms	C
5	Multiple Choice	1	Statistics and Probability	6.S10 Determine the probability of dependent events	A
6	Multiple Choice	1	Algebra	7.A02 Add and subtract monomials with exponents of one	C
7	Multiple Choice	1	Number Sense and Operations	7.N11 Simplify expressions using order of operations *Note: Expressions may include absolute value and/or integral exponents greater than 0.*	C
8	Multiple Choice	1	Geometry	7.G03 Identify the two-dimensional shapes that make up the faces and bases of three-dimensional shapes (prisms, cylinders, cones, and pyramids)	A
9	Multiple Choice	1	Number Sense and Operations	7.N12 Add, subtract, multiply, and divide integers	A
10	Multiple Choice	1	Algebra	7.A04 Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation	D
11	Multiple Choice	1	Statistics and Probability	7.S06 Read and interpret data represented graphically (pictograph, bar graph, histogram, line graph, double line/bar graphs or circle graph)	A
12	Multiple Choice	1	Algebra	6.A05 Solve simple proportions within context	B
13	Multiple Choice	1	Measurement	7.M03 Identify customary and metric units of mass	A
14	Multiple Choice	1	Statistics and Probability	7.S12 Compare actual results to predicted results	C
15	Multiple Choice	1	Geometry	7.G10 Graph the solution set of an inequality (positive coefficients only) on a number line	A

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1 (continued)					
16	Multiple Choice	1	Statistics and Probability	6.S11 Determine the number of possible outcomes for a compound event by using the fundamental counting principle and use this to determine the probabilities of events when the outcomes have equal probability	D
17	Multiple Choice	1	Geometry	6.G11 Calculate the area of basic polygons drawn on a coordinate plane (rectangles and shapes composed of rectangles having sides with integer lengths)	A
18	Multiple Choice	1	Number Sense and Operations	7.N09 Determine multiples and least common multiple of two or more numbers	C
19	Multiple Choice	1	Statistics and Probability	6.S11 Determine the number of possible outcomes for a compound event by using the fundamental counting principle and use this to determine the probabilities of events when the outcomes have equal probability	A
20	Multiple Choice	1	Algebra	6.A04 Solve and explain two-step equations involving whole numbers using inverse operations	A
21	Multiple Choice	1	Statistics and Probability	7.S10 Predict the outcome of an experiment	C
22	Multiple Choice	1	Statistics and Probability	7.S08 Interpret data to provide the basis for predictions and to establish experimental probabilities	B
23	Multiple Choice	1	Number Sense and Operations	7.N06 Translate numbers from scientific notation into standard form	C
24	Multiple Choice	1	Number Sense and Operations	7.N08 Find the common factors and greatest common factor of two or more numbers	B
25	Multiple Choice	1	Number Sense and Operations	7.N03 Place rational and irrational numbers (approximations) on a number line and justify the placement of the numbers	A
26	Multiple Choice	1	Measurement	7.M09 Determine the tool and technique to measure with an appropriate level of precision: mass	B
27	Multiple Choice	1	Number Sense and Operations	7.N15 Recognize and state the value of the square root of a perfect square (up to 225)	B
28	Multiple Choice	1	Number Sense and Operations	7.N18 Identify the two consecutive whole numbers between which the square root of a non-perfect square whole number less than 225 lies (with and without the use of a number line)	C

Question	Type	Points	Strand	Content Performance Indicator	Answer Key
Book 1 (continued)					
29	Multiple Choice	1	Number Sense and Operations	7.N02 Recognize the difference between rational and irrational numbers (e.g., explore different approximations of π)	A
30	Multiple Choice	1	Statistics and Probability	7.S09 Determine the validity of sampling methods to predict outcomes	D
Book 2					
31	Short Response	2	Algebra	7.A06 Evaluate formulas for given input values (surface area, rate, and density problems)	n/a
32	Short Response	2	Geometry	7.G09 Determine whether a given triangle is a right triangle by applying the Pythagorean Theorem and using a calculator	n/a
33	Short Response	2	Statistics and Probability	6.S09 List possible outcomes for compound events	n/a
34	Short Response	2	Measurement	7.M08 Draw central angles in a given circle using a protractor (circle graphs)	n/a
35	Extended Response	3	Statistics and Probability	6.S02 Record data in a frequency table	n/a
36	Extended Response	3	Number Sense and Operations	7.N10 Determine the prime factorization of a given number and write in exponential form	n/a
37	Extended Response	3	Number Sense and Operations	7.N19 Justify the reasonableness of answers using estimation	n/a
38	Extended Response	3	Geometry	7.G04 Determine the surface area of prisms and cylinders, using a calculator and a variety of methods	n/a