



Glencoe

GLENCOE CORRELATION

CONTEMPORARY MATH IN CONTEXT COURSES 1, 2, 3, and 4 ©2003

COLORADO

Content Standards Mathematics Grades 9-12

| OBJECTIVES | PAGE REFERENCES | | | |
|--|--|--|--|---|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| STANDARD 1: | | | | |
| Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems. | | | | |
| In order to meet this standard, a student will | | | | |
| <ul style="list-style-type: none"> construct and interpret number meanings through real-world experiences* and the use of hands-on materials; | Throughout examples include: SE: 122-125, 439-460 TG: T122-T125, T439-T460 | SE: 30-58, 234-237, 250-255, 413-418 TG: T30-T58, T234-T237, T250-T255, T413-T418 | SE: 346-354, 384-415 TG: T346-T354, T384-T415 | SE: 3-71, 80-135, 600-641 TG: T5-T86, T102-T171, T715-T742 |
| <ul style="list-style-type: none"> represent and use numbers in a variety of equivalent forms (<i>for example, fractions, decimals, percents, exponents*, scientific notation*</i>); | SE: 31-74, 236, 373-382, 433, 439-480 TG: T31-T74, T236, T373-T382, T433, T439-T480 | Throughout examples include: SE: 30-58, 238-240, 289-310, 301-302, 378, 400-405, 474, 478, 479, 499, 544 TG: T30-T58, T238-T240, T289-T310, T301-T302, T378, T400-T405, T474, T478, T479, T499, T544 | SE: 90-148, 188-207 TG: T90-T148, T188-T207 | SE: 158-177, 226-231, 439, 444-447, 452-455, 494-505 TG: T200-T228, T277-T282, T511, T517-T522, T529-T533, T582, T583-T640 |
| <ul style="list-style-type: none"> know the structure and properties of the real number system* (<i>for example, primes*, factors, multiples, relationships among sets of numbers</i>); and | SE: 420-460 TG: T420-T460 | SE: 41-45, 50, 290-293, 301-302 TG: T41-T45, T50, T290-T293, T301-T302 | SE: 149-164, 268 TG: T149-T164, T268 | SE: 176, 390-395, 494-500, 593 TG: T225, T449-T455, T584-T594, T710 |
| <ul style="list-style-type: none"> use number sense, including estimation and mental arithmetic, to determine the reasonableness of solutions. | Opportunity to address throughout: SE: 122-125 TG: T122-T125 | Opportunity to address throughout: SE: 26-40, 50, 170-185, 289-310, 301-302 TG: T26-T40, T50, T170-T185, T289-T310, T301-T302 | Opportunity to address throughout: SE: 25-45 TG: | Throughout examples include: SE: 5, 15-18, 67, 81-98, 453 TG: T8, T16-T18, T78-T80, T102-T127, T531 |

| OBJECTIVES | PAGE REFERENCES | | | |
|--|---|---|---|--|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| GRADES 9-12 | | | | |
| As students in grades 9-12 extend their knowledge, what they know and are able to do includes | | | | |
| <ul style="list-style-type: none"> demonstrating meanings for real numbers, absolute value*, and scientific notation using physical materials and technology in problem-solving situations; | Throughout examples include: SE: 122-125, 355-382, 461-467 TG: T122-T125, T355-T382, T461-T467 | SE: 50, 170-226, 289-310 TG: T50, T170-T226, T289-T310 | SE: 90-148, 346-347, 371-374, 384-395 TG: T90-T148, T346-T347, T371-T374, T384-T395 | SE: 390-395, 399, 593, 607-611, 659 TG: T449-T455, T719-T723 |
| <ul style="list-style-type: none"> developing, testing, and explaining conjectures about properties of number systems and sets of numbers; and | | SE: 50, 290-293, 301-302 TG: T50, T290-T293, T301-T302 | SE: 262, 268 TG: T263, T268 | SE: 394, 578-596, 610 TG: T452-T453, T693-T712, T721-T722 |
| <ul style="list-style-type: none"> using number sense to estimate and justify the reasonableness of solutions to problems involving real numbers. | Throughout examples include: SE: 122-125, 362-382 TG: T122-T125, T362-T382 | SE: 41-45, 50, 290-293, 301-302 TG: T41-T45, T50, T290-T293, T301-T302 | Throughout examples include: SE: 25-45, 63-79, 225-233 TG: T25-T45, T63-T79, T225-T233 | Throughout examples include: SE: 5, 15-18, 67, 81-98 TG: T8, T16-T18, T78-T80, T101-T127 |
| STANDARD 2 | | | | |
| Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems. | | | | |
| In order to meet this standard, a student will | | | | |
| <ul style="list-style-type: none"> identify, describe, analyze, extend, and create a wide variety of patterns in numbers, shapes, and data; | Throughout examples include: SE: 99-103, 110-121, 181-205, 276, 337-338, 420-480 TG: T99-T103, T110-T121, T181-T205, T276, T337-T338, T420-T480 | SE: 170-226 TG: T170-T226 | SE: 2-24, 25-45, 46-62, 68-85, 442-425, 428, 437, 453 TG: T2-T24, T25-T45, T46-T62, T68-T85, T442-T425, T428, T437, T453 | SE: 2-19, 22-49, 52-71, 277-297, 300-315, 318-351 TG: T4-T19, T21-T59, T61-T86, T335-T358, T359-T374, T375-T407 |
| <ul style="list-style-type: none"> describe patterns using mathematical language; | Throughout examples include: SE: 99-103, 110-121, 181-205, 337-338, 420-480 TG: T99-T103, T110-T121, T181-T205, T337-T338, T420-T480 | SE: 234-310, 379, 436-449 TG: T234-T310, T379, T436-T449 | SE: 2-85, 135-143, 153-158, 506-518, 530-536 TG: T2-T85, T135-T143, T153-T158, T506-T518, T530-T536 | SE: 2-19, 22-49, 277-351, 361-365, 377 TG: T4-T19, T21-T59, T335-T358, T418-T422, T437 |
| <ul style="list-style-type: none"> solve problems and model real-world situations using patterns and functions; | Throughout examples include: SE: 110-121, 141-147, 181-205, 420-480 TG: T110-T121, T141-T147, T181-T205, T420-T480 | SE: 234-310, 379, 436-449, 544 TG: T234-T310, T379, T436-T449, T544 | SE: 2-85, 422-487 TG: T2-T85, T422-T487 | SE: 2-19, 22-49, 52-71, 361-365, 377, 666-677 TG: T4-T19, T21-T59, T61-T86, T335-T358, T437, T781-T796 |
| <ul style="list-style-type: none"> compare and contrast different types of functions; and | SE: 141-147, 420, 440, 452, 471, 480-481 TG: T141-T147, T420, T440, T452, T471, T480-T481 | SE: 266-271, 271-273, 436-449 TG: T266-T271, T271-T273, T436-T449 | SE: 422-487 TG: T422-T487 | SE: 22-49, 180-207, 382-383, 406-415 TG: T21-T59, T232-T257, T465-T478 |

| OBJECTIVES | PAGE REFERENCES | | | |
|--|---|---|--|---|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| <ul style="list-style-type: none"> describe the connections among representations of patterns and functions, including words, tables, graphs, and symbols. | SE: 141-147, 276, 430, 447, 471, 481 TG: T141-T147, T276, T430, T447, T471, T481 | SE: 256-264, 266-271, 271-277, 436-449, 545 TG: T256-T264, T266-T271, T271-T277, T436-T449, T545 | SE: 2-24, 25-45, 46-62, 68-85, 187-207, 422-487 TG: T2-T24, T25-T45, T46-T62, T68-T85, T187-T207, T422-T487 | SE: 2-19, 22-49, 52-71, 74-78, 180-207, 360-379, 382-383, 406-415, 437 TG: T4-T19, T21-T59, T61-T86, T88-T95, T232-T257, T415-T439, T441-T443, T465-T478 |
| GRADES 9-12 | | | | |
| As students in grades 9-12 extend their knowledge, what they know and are able to do includes | | | | |
| <ul style="list-style-type: none"> modeling real-world phenomena (<i>for example, distance-versus-time relationships, compound interest, amortization tables, mortality rates</i>) using functions, equations, inequalities, and matrices*; | SE: 131-136, 139, 150, 211-219, 269, 427-430, 439-454, 455-457 TG: T131-T136, T139, T150, T211-T219, T269, T427-T430, T439-T454, T455-T457 | SE: 59, 60-63, 149-168, 234-317, 412-421 TG: T59, T60-T63, T149-T168, T234-T317, T412-T421 | SE: 46-62, 63-85, 170-174, 175-178, 423-440, 480-484 TG: T46-T62, T63-T85, T170-T174, T175-T178, T423-T440, T480-T484 | Throughout examples include: SE: 2-19, 22-49, 52-71, 74-78, 138, 155, 360-379, 382-397, 406-412, 648-656, 658-663, 671-677 TG: T4-T19, T21-T59, T61-T86, T88-T95, T175, T197, T415-T439, T441-T456, T465-T472 |
| <ul style="list-style-type: none"> representing functional relationships using written explanations, tables, equations, and graphs, and describing the connections among these representations; | SE: 141-147, 430, 447, 471, 481 TG: T141-T147, T430, T447, T471, T481 | SE: 234-317 TG: T234-T317 | SE: 170-174, 175-178, 423-440, 480-485 TG: T170-T174, T175-T178, T423-T440, T480-T485 | SE: 22-49, 158-177, 360-379, 406-425, 444-447 TG: T21-T59, T200-T227, T415-T439, T465-T488, T517-T521 |
| <ul style="list-style-type: none"> solving problems involving functional relationships using graphing calculators and/or computers as well as appropriate paper-and-pencil techniques; | SE: 141-147, 181-219, 220-225, 428-454 TG: T141-T147, T181-T219, T220-T225, T428-T454 | SE: 234-317, 266-271, 271-273, 412-421 TG: T234-T317, T266-T271, T271-T273, T412-T421 | SE: 182, 186, 195, 199, 207, 422-487 TG: T182, T186, T195, T199, T207, T422-T487 | SE: 2-19, 22-49, 52-71, 108-133, 142-150, 158-168, 361-367, 406-424 TG: T4-T19, T21-T59, T61-T86, T139-T171, T182-T191, T200-T213, T418-T424, T465-T487 |
| <ul style="list-style-type: none"> analyzing and explaining the behaviors, transformations*, and general properties of types of equations and functions (<i>for example, linear, quadratic*, exponential*</i>); and | SE: 141-147, 182-187, 248, 423, 434, 447, 456, 471, 481 TG: T141-T147, T182-T187, T248, T423, T434, T447, T456, T471, T481 | SE: 238-240, 256-258, 274-277, 436-449 TG: T238-T240, T256-T258, T274-T277, T436-T449 | SE: 226-239, 422-487 TG: T226-T239, T422-T487 | SE: 23-31, 180-207, 382-383, 406-415, 571 TG: T22-T33, T230-T257, T441-T488, T682 |

| OBJECTIVES | PAGE REFERENCES | | | |
|--|---|---|---|---|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| <ul style="list-style-type: none"> interpreting algebraic equations and inequalities geometrically and describing geometric relationships algebraically. | SE: 182-186, 211-219, 276, 327-329, 335-338, 349, 369 TG: T182-T186, T211-T219, T276, T327-T329, T335-T338, T349, T369 | SE: 97-107, 108-168, 234-238, 379, 385-394, 395-399, 412-421 TG: T97-T107, T108-T168, T234-T238, T379, T385-T394, T395-T399, T412-T421 | SE: 46-62, 63-85, 212-215, 218-220, 224, 422-440 TG: T46-T62, T63-T85, T212-T215, T218-T220, T224, T422-T440 | SE: 23-31, 37-40, 53-64, 388, 390, 397, 399, 414, 418-420, 478, 527-543, 546-569 TG: T22-T33, T43-T47, T62-T76, T447, T448-T449, T456, T457, T476, T480-T482, T561, T632-T650, T651-T681 |
| STANDARD 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems. In order to meet this standard, a student will | | | | |
| <ul style="list-style-type: none"> solve problems by systematically collecting, organizing, describing, and analyzing data using surveys, tables, charts, and graphs; | SE: 3-8, 102-107, 327-329, 369 TG: T3-T8, T102-T107, T327-T329, T369 | SE: 170-178, 188-196 TG: T170-T178, T188-T196 | SE: 92-114, 115-120, 135-147, 153-164 TG: T92-T114, T115-T120, T135-T147, T153-T164 | SE: 276-297, 323-329, 332-351 TG: T335-T358, T380-T389, T390-T407 |
| <ul style="list-style-type: none"> make valid inferences, decisions, and arguments based on data analysis; and | SE: 3-8, 36, 47-65, 75-83 TG: T3-T8, T36, T47-T65, T75-T83 | SE: 170-178, 186-199, 212-214 TG: T170-T178, T186-T199, T212-T214 | SE: 135-147, 153-164, 346-361, 362-383, 384-415 TG: T135-T147, T153-T164, T346-T361, T362-T383, T384-T415 | SE: 318-329, 332-351 TG: T375-T389, T380-T389 |
| <ul style="list-style-type: none"> use counting techniques, experimental probability, or theoretical probability, as appropriate, to represent and solve problems involving uncertainty. | SE: 422, 429, 484-512 TG: T422, T429, T484-T512 | SE: 457-459, 460-461, 462-464, 483, 485-494, 495-509 TG: T457-T459, T460-T461, T462-T464, T483, T485-T494, T495-T509 | SE: 110, 135-152, 402-415 TG: T110, T135-T152, T402-T415 | SE: 216-237, 240-255, 270-274, 277-295, 318-329 TG: T269-T287, T289-T305, T323-T328, T337-T357, T375-T389, |
| GRADES 9-12 As students in grades 9-12 extend their knowledge, what they know and are able to do includes | | | | |
| <ul style="list-style-type: none"> designing and conducting a statistical experiment to study a problem, and interpreting and communicating the results using the appropriate technology (<i>for example, graphing calculators, computer software</i>); | SE: 29-30, 105-106, 138 TG: T29-T30, T105-T106, T138 | SE: 170-178 TG: T170-T178 | SE: 92-114, 115-120, 384-415 TG: T92-T114, T115-T120, T384-T415 | Opportunity to address: SE: 276-297, 332-351 TG: T335-T358, T380-T389 |
| <ul style="list-style-type: none"> analyzing statistical claims for erroneous conclusions or distortions; | SE: 31-37 TG: T31-T37 | SE: 170-178 TG: T31-T37 | SE: 115-120, 121-124, 402-411 TG: T115-T120, T121-T124, T402-T411 | SE: 276-292, 332-351 TG: T335-T358, T380-T389 |

| OBJECTIVES | PAGE REFERENCES | | | |
|--|---|--|--|---|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| <ul style="list-style-type: none"> fitting curves to scatter plots, using informal methods or appropriate technology, to determine the strength of the relationship between two data sets and to make predictions; | SE: 181, 189, 193, 195-199, 420-454 TG: T181, T189, T193, T195-T199, T420-T454 | SE: 170-171, 186-197, 212-218, 235-237, 242, 245, 253-256, 261-263, 266-270 TG: T170-T171, T186-T197, T212-T218, T235-T237, T242, T245, T253-T256, T261-T263, T266-T270 | SE: 184, 292, 422, 438, 454, 455 TG: T184, T292, T422, T438, T454, T455 | SE: 180-195, 198-207, 360-368, 377, 396, 406-411, 423, 480 TG: T230-T247, T248-T258, T418-T425, T436, T455, T464-T471, T486, T562-T563 |
| <ul style="list-style-type: none"> drawing conclusions about distributions of data based on analysis of statistical summaries (<i>for example, the combination of mean and standard deviation, and differences between the mean and median</i>); | SE: 31-73 TG: T31-T73 | SE: 170-178 TG: T170-T178 | SE: 346-361, 362-383, 384-415 TG: T346-T361, T362-T383, T384-T415 | SE: 276-279, 300-315 TG: T335-T340, T359-T374 |
| <ul style="list-style-type: none"> using experimental and theoretical probability to represent and solve problems involving uncertainty (<i>for example, the chance of playing professional sports if a student is a successful high school athlete</i>); and | SE: 498-518 TG: T498-T518 | SE: 457-459, 460-461, 462-464, 485-494, 495-509, 510-529 TG: T457-T459, T460-T461, T462-T464, T485-T494, T495-T509, T510-T529 | SE: 384-415 TG: T384-T415 | SE: 276-296, 311-315, 318-329 TG: T335-T340, T368-T374, T375-T389 |
| <ul style="list-style-type: none"> solving real-world problems with informal use of combinations and permutations* (<i>for example, determining the number of possible meals at a restaurant featuring a given number of side dishes</i>). | SE: 509-512 TG: T509-T512 | SE: 457-459, 460-461, 462-464 TG: T457-T459, T460-T461, T462-T464 | SE: 63-68 TG: T63-T68 | SE: 222-237, 296 TG: T274-T287, T357 |
| STANDARD 4: Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems. In order to meet this standard, a student will | | | | |
| <ul style="list-style-type: none"> connect various physical objects with their geometric representation; | SE: 136, 151, 274, 326-344 TG: T136, T151, T274, T326-T344 | SE: 234-237, 370-373, 395-398, 412-453 TG: T234-T237, T370-T373, T395-T398, T412-T453 | SE: 289, 326 TG: T289, T326 | SE: 514-543, 546-569, 572-576 TG: T620-T650, T651-T681, T683-T687 |

| OBJECTIVES | PAGE REFERENCES | | | |
|--|---|---|---|---|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| <ul style="list-style-type: none"> connect mathematical concepts from across the standards with their geometric representations; | SE: 136, 151, 274, 331, 332, 349, 351, 398, 411 TG: T136, T151, T274, T331, T332, T349, T351, T398, T411 | SE: 80-108, 234-237, 295, 370-373, 395-398, 412-453 TG: T80-T108, T234-T237, T295, T370-T373, T395-T398, T412-T453 | SE: 327, 422-440, 530-545 TG: T327, T422-T440, T530-T545 | SE: 80-96, 103, 108-133, 546-569 TG: T101-T126, T134, T140-T171, T651-T681 |
| <ul style="list-style-type: none"> recognize, draw, describe, and analyze geometric shapes in one, two, and three dimensions; | SE: 326-344, 383-418 TG: T326-T344, T383-T418 | SE: 80-96, 149-168, 235-237, 295, 395-398 TG: T80-T96, T149-T168, T235-T237, T295, T395-T398 | SE: 244-252, 261-267, 295-296, 325, 530-545 TG: T244-T252, T261-T267, T295-T296, T325, T530-T545 | SE: 80-96, 108-133, 514-543, 546-569, 572-576 TG: T101-T126, T140-T171, T620-T649, T683-T687 |
| <ul style="list-style-type: none"> make, investigate, and test conjectures about geometric ideas; and | SE: 326-329, 345-346, 360, 383-389 TG: T326-T329, T345-T346, T360, T383-T389 | SE: 80-97, 234-238, 395-398 TG: T80-T97, T234-T238, T395-T398 | SE: 279-296, 297-324, 553-557, 558-560 TG: T279-T296, T297-T324, T553-T557, T558-T560 | SE: 109-126, 514-543 TG: T141-T162, T620-T649 |
| <ul style="list-style-type: none"> solve problems and model real-world situations using geometric concepts. | SE: 136, 151, 274, 331, 332, 345-350, 426, 432, 443-444, 454 TG: T136, T151, T274, T331, T332 | SE: 234-238, 320-327, 340-351, 370-373, 395-398 TG: T370, T395 | SE: 25-45, 288, 289, 297, 308, 311, 322, | SE: 80-105, 108-133, 514-543 TG: T101-T139, T139-T171, T620-T649 |
| GRADES 9-12 | | | | |
| As students in grades 9-12 extend their knowledge, what they know and are able to do includes | | | | |
| <ul style="list-style-type: none"> finding and analyzing relationships among geometric figures using transformations (<i>for example, reflections, translations, rotations, dilations*</i>) in coordinate systems*; | SE: 387-388, 405-410 TG: T279-T296, T297-T324, T553-T557, T558-T560 | SE: 108, 111-115, 126-129, 436-449 TG: T108, T111-T115, T126-T129, T436-T449 | SE: 442-461, 463-479 TG: T442-T461, T463-T479 | SE: 479, 494-500, 502, 514-543, 562 TG: T561, T584-T594, T597, T620-T650, T672 |
| <ul style="list-style-type: none"> deriving and using methods to measure perimeter, area, and volume of regular and irregular geometric figures; | SE: 355-361, 366, 369, 373-382 TG: T355-T361, T366, T369, T373-T382 | SE: 81-86, 234-238, 295 TG: T81-T86, T234-T238, T295 | SE: 553-557, 558-559 TG: T553-T557, T558-T559 | SE: 60-64, 507, 666-670 TG: T72-T76, T604, T781-T787 |
| <ul style="list-style-type: none"> making and testing conjectures about geometric shapes and their properties, incorporating technology where appropriate; and | SE: 326-329, 345-346, 360, 371, 379, 383-385 TG: T326-T329, T345-T346, T360, T371, T379, T383-T385 | SE: 80-108, 234-238, 295, 395-399 TG: T80-T108, T234-T238, T295, T395-T399 | SE: 279-296, 297-324, 553-557, 558-559 TG: T279-T296, T297-T324, T553-T557, T558-T559 | SE: 112, 514-522, 526-527, 547-551, 568-569 TG: T144-T145, T620-T629, T652-T656, T680-T681 |
| <ul style="list-style-type: none"> using trigonometric ratios* in problem-solving situations (<i>for example, finding the height of a building from a given point, if the distance to the building and the angle of elevation are known</i>). | | SE: 395-399, 400-411, 436-449 TG: T395-T399, T400-T411, T436-T449 | SE: 27-45 TG: T27-T45 | SE: 89-105, 458-477 TG: T111-T137, T536-T561 |

| OBJECTIVES | PAGE REFERENCES | | | |
|---|---|--|--|--|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| STANDARD 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems. In order to meet this standard, a student will | | | | |
| <ul style="list-style-type: none"> understand and apply the attributes of length, capacity*, weight, mass, time, temperature, perimeter, area, volume, and angle measurement in problem-solving situations; | SE: 67, 147, 193, 206, 241, 355-361, 372-382 TG: T67, T147, T193, T206, T241, T355-T361, T372-T382 | SE: 80-96, 235-238, 247-249, 295, 419-423, 441 TG: T80-T96, T235-T238, T247-T249, T295, T419-T423, T441 | SE: 553-557 TG: T553-T557 | SE: 60-64, 87-98, 108-134, 480-491 TG: T73-T76, T107-T127, T139-T171, T562-T582 |
| <ul style="list-style-type: none"> make and use direct and indirect measurements to describe and compare real-world phenomena; | SE: 365-372 TG: T365-T372 | SE: 81-84, 134, 295, 395-398, 400-404 TG: T81-T84, T134, T295, T395-T398, T400-T404 | SE: 27-45, 558-560 TG: T27-T45, T558-T560 | SE: 518-522, 666-670 TG: T625-T629, T781-T787 |
| <ul style="list-style-type: none"> understand the structure and use of systems of measurement; | SE: 356-360, 373-376 TG: T356-T360, T373-T376 | SE: 235-238, 247-249 TG: T235-T238, T247-T249 | | SE: 494-505, 515-522 TG: T583-T604, T620-T629 |
| <ul style="list-style-type: none"> describe and use rates of change (<i>for example, temperature as it changes throughout the day, or speed as the rate of change of distance over time</i>) and other derived measures; and | SE: 143, 150, 182-210, 430, 479 TG: T143, T150, T182-T210, T430, T479 | SE: 81-84, 104-106 TG: T81-T84, T104-T106 | SE: 422-427 TG: T422-T427 | SE: 2-19, 22-49, 454, 477 TG: T4-T19, T21-T59, T532, T560-T561 |
| <ul style="list-style-type: none"> select appropriate units, including metric and U.S. customary, and tools (<i>for example, rulers, protractors, compasses, thermometers</i>) to measure to the degree of accuracy required to solve a given problem. | SE: 356-360, 373-376 TG: T356-T360, T373-T376 | SE: 235-238, 247-249, 373-376, 385, 413-419 TG: T235-T238, T247-T249, T373-T376, T385, T413-T419 | SE: 347-349 TG: T347-T349 | SE: 518-522 TG: T625-T629 |
| GRADES 9-12 As students in grades 9-12 extend their knowledge, what they know and are able to do includes | | | | |
| <ul style="list-style-type: none"> measuring quantities indirectly using techniques of algebra, geometry, or trigonometry*; | SE: 365-372 TG: T365-T372 | SE: 80-108, 134, 395-398, 400-404 TG: T80-T108, T134, T395-T398, T400-T404 | SE: 27-45 TG: T27-T45 | SE: 666-670 TG: T781-T787 |

| OBJECTIVES | PAGE REFERENCES | | | |
|---|---|--|--|---|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| <ul style="list-style-type: none"> selecting and using appropriate techniques and tools to measure quantities in order to achieve specified degrees of precision, accuracy, and error (or tolerance) of measurements; and | SE: 3-6, 99-101, 356-360, 373-376 TG: T3-T6, T99-T101, T356-T360, T373-T376 | SE: 235-238, 247-249, 373-376, 385, 413-419 TG: T235-T238, T247-T249, T373-T376, T385, T413-T419 | SE: 347-349 TG: T347-T349 | SE: 518-522 TG: T625-T629 |
| <ul style="list-style-type: none"> determining the degree of accuracy of a measurement (<i>for example, by understanding and using significant digits</i>). | SE: 356-360, 373-376 TG: T356-T360, T373-T376 | SE: 247-249, 398, 402 TG: T247-T249, T398, T402 | Opportunity to address: SE: 28-31, 32-34 TG: T28-T31, T32-T34 | Opportunity to address: SE: 480-490 TG: T563-T580 |
| STANDARD 6: Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems. In order to meet this standard, a student will | | | | |
| <ul style="list-style-type: none"> model, explain, and use the four basic operations - addition, subtraction, multiplication, and division - in problem-solving situations; | Throughout examples include: SE: 122-125, 220-222 TG: T122-T125, T220-T222 | Throughout examples include: SE: 27-41, 60-62, 63-65, 472-476, 572-573 TG: T27-T41, T60-T62, T63-T65, T472-T476, T572-T573 | Throughout examples include: SE: 3-10, 32-45, 423-427 TG: T3-T10, T32-T45, T423-T427 | Throughout examples include: SE: 5, 25, 53-59, 159-168, 607-610, 649-656 TG: T8, T24-T25, T61-T72, T200-T213, T719-T722, T756-T769 |
| <ul style="list-style-type: none"> develop, use, and analyze algorithms*; and | SE: 122-125, 220-222, 254-257, 277-286 TG: T122-T125, T220-T222, T254-T257, T277-T286 | SE: 60-62, 63-65, 80-108, 109-148, 320-327, 340-351 TG: T60-T62, T63-T65, T80-T108, T109-T148, T320-T327, T340-T351 | SE: 530-545 TG: T530-T545 | SE: 32-49, 600-605, 611-625, 648-656, 657-663 TG: T34-T59, T715-T718, T722-T732, T755-T769, T770-T780 |
| <ul style="list-style-type: none"> select and apply appropriate computational techniques to solve a variety of problems and determine whether the results are reasonable. | SE: 122-125, 220-222, 277-278, 355-366, 373-382 TG: T122-T125, T220-T222, T277-T278, T355-T366, T373-T382 | SE: 27-41, 60-62, 63-65, 149-168 TG: T27-T41, T60-T62, T63-T65, T149-T168 | SE: 28-56, 64-79 TG: T28-T56, T64-T79 | Throughout examples include: SE: 5, 25, 53-59, 173, 600-625, 648-656, 671-677 TG: T8, T24-T25, T61-T72, T218-T219, T755-T769, T788-T796 |
| GRADES 9-12 As students in grades 9-12 extend their knowledge, what they know and are able to do includes | | | | |
| <ul style="list-style-type: none"> using ratios, proportions, and percents in problem-solving situations; | SE: 27, 58, 110-120, 176-177, 180, 182, 192-194, 455-460, 479 TG: T27, T58, T110-T120, T176-T177, T180, T182, T192-T194, T455-T460, T479 | SE: 27-29, 134, 135, 247-249 TG: T27-T29, T134, T135, T247-T249 | SE: 26-27, 28-31, 40-45 TG: T26-T27, T28-T31, T40-T45 | SE: 91-93, 104-105, 458-467, 649-652 TG: T114-T120, T135-T136, T536-T548, T756-T762 |

| OBJECTIVES | PAGE REFERENCES | | | |
|---|---|--|--|--|
| | COURSE 1 | COURSE 2 | COURSE 3 | COURSE 4 |
| <ul style="list-style-type: none"> selecting and using appropriate methods for computing with real numbers in problem-solving situations from among mental arithmetic, estimation, paper-and-pencil, calculator, and computer methods, and determining whether the results are reasonable; and | Throughout examples include: SE: 25, 122-125, 220-222, 356-382, 416-418, 420-480 TG: T25, T122-T125, T220-T222, T356-T382, T416-T418, T420-T480 | Throughout examples include: SE: 60-62, 63-65, 80-96, 171-175 TG: T60-T62, T63-T65, T80-T96, T171-T175 | Throughout examples include: SE: 63-79, 226-233, 347-354, 489-494 TG: T63-T79, T226-T233, T347-T354, T489-T494 | Throughout examples include: SE: 217-237, 240-244, 382-384, 600-618 TG: T270-T287, T289-T293, T441-T444, T715-T726 |
| <ul style="list-style-type: none"> describing the limitations of estimation, and assessing the amount of error resulting from estimation within acceptable limits. | SE: 162-165 TG: T162-T165 | Opportunity to address: SE: 188-196 TG: T188-T196 | Opportunity to address: SE: 25-35, 561-564, Capstone TG: T25-T35, T561-T564 | Opportunity to address: SE: 160-167, 448-450, 480-491 TG: T202-T212, T532-T537, T562-T582 |