Unit 5: Rational Number Arithmetic

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Lesson	Skill	Online Resources	Standard
1	Compare rational numbers. Use rational numbers to describe temperature and elevation.	https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-fractions-decimals/cc-7th-add-sub-rational-numbers/v/comparing-rational-numbers https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-fractions-decimals/cc-7th-add-sub-rational-numbers/e/comparing-rational-numbers https://www.factmonster.com/math/numbers/rational-and-irrational-numbers	7.NS.A.1.b, 7.NS.A.1.c, 7.NS.A.1, 7.NS.A.2.d
2	Use a number line to add positive and negative numbers.	https://learnzillion.com/lesson_plans/5250-adding-positive-and-negative-integers-on-a-number-line/ https://www.khanacademy.org/math/arithmetic-home/negative-numbers/add-sub-neg-number-line/v/adding-negative-numbers-on-number-line-examples	7.NS.A.1.a, 7.NS.A.1.b
3	Understand how to add positive and negative numbers in general.	https://www.youtube.com/watch?v=0vt2lm2mQUA https://www.youtube.com/watch?v=Js9sVSFpyFE https://www.youtube.com/watch?v=5exX2tlyz4g	7.NS.A.1.a, 7.NS.A.1.b, 7.NS.A.1.c, 7.NS.A.1.d
4	Understand what positive and negative numbers mean in a situation involving money.	https://www.youtube.com/watch?v=-5VOCofsMVk https://www.youtube.com/watch?v=OAoLCXpao6s	7.NS.A.1
5	Use a number line to subtract positive and negative numbers. Explain the relationship between addition and subtraction of rational numbers.	https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-sub-neg-intro/v/adding-and-subtracting-negative-number-examples https://www.youtube.com/watch?v=B6rOZxdiw08 https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-sub-neg-intro/v/why-subtracting-a-negative-equivalent-to-adding-a-positive https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-sub-neg-intro/e/understand-subtraction-as-adding-the-	7.NS.A.1.c

		opposite https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-sub-neg-intro/e/adding_and_subtracting_negative_numbers	
6	Find the difference between two rational numbers. Understand how to subtract positive and negative numbers in general.	https://www.youtube.com/watch?v=SQ1eO5xKRow https://www.youtube.com/watch?v=p5v57aayD5M https://www.youtube.com/watch?v=s6Von1KwuMA	7.NS.A.1.c, 7.NS.A.1
7	Solve problems that involve adding and subtracting rational numbers.	https://www.ixl.com/math/grade-7/add-and-subtract-integers https://www.ixl.com/math/grade-7/add-and-subtract-rational-numbers	7.NS.A.1.c, 7.NS.A.3
8	Multiply a positive number with a negative number.	https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-mult-divide-negatives/v/multiplying-positive-and-negative-numbers https://www.youtube.com/watch?v=QmarTb7wXro	7.NS.A.2.a, 7.RP.A
9	Multiply two negative numbers	https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-mult-divide-negatives/v/multiplying-positive-and-negative-numbers https://www.khanacademy.org/math/arithmetic/arith-review-negative-numbers/arith-review-mult-divide-negatives/e/multiplying_and_dividing_negative_numbers	7.NS.A.2.a, 7.NS.A.2.c, 7.NS.A.2, 7.RP.A.2
10	Solve problems that involve multiplying rational numbers.	https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-multiply-and-divide/cc-7th-mult-div-neg-word-problems/v/interpreting-multiplicationa-and-division-of-negative-numbers https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-multiply-and-divide/cc-7th-mult-div-neg-word-problems/e/negative-	7.NS.A.2.c

		number-word-problems-1	
11	Divide rational numbers.	https://www.khanacademy.org/math/arithmetic-home/negative-numbers/mult-divide-negatives/v/dividing-positive-and-negative-numbers https://www.youtube.com/watch?v=aWP_G38v6ys https://www.khanacademy.org/math/in-in-class-7th-math-cbse/in-in-7th-rational-numbers/in-in-rational-nos-multiply-divide/v/division-of-rational-numbers https://www.khanacademy.org/math/in-in-class-7th-math-cbse/in-in-7th-rational-numbers/in-in-rational-nos-multiply-divide/v/examples-of-dividing-negative-fractions https://www.khanacademy.org/math/in-in-class-7th-math-cbse/in-in-7th-rational-numbers/in-in-rational-nos-multiply-divide/e/dividing_fractions_2	7.NS.A.2.b, 7.NS.A.2
12	Solve problems that involve multiplying and dividing rational numbers.	https://www.youtube.com/watch?v=QY6Pkj7Lreo https://www.ixl.com/math/grade-8/multiply-and-divide-rational-numbers-word-problems https://www.khanacademy.org/math/in-in-class-7th-math-cbse/in-in-7th-rational-numbers/in-in-rational-nos-multiply-divide/v/in-in-rational-nos-multiplication	7.EE.B.3, 7.NS.A.3, 7.RP.A.2
13	Add, subtract, multiply, and divide rational numbers. Evaluate expressions that involve rational numbers.	https://www.youtube.com/watch?v=MZpULgKhaEU https://www.youtube.com/watch?v=lGxTdqKU3KY https://www.mathplanet.com/education/pre-algebra/introducing-algebra/evaluate-expressions https://www.khanacademy.org/math/cc-seventh-grade-math/cc-7th-negative-numbers-multiply-and-divide/cc-7th-mult-div-fractions-2/v/rational-number-expressions	7.NS.A, 7.NS.A.3
14	Solve problems using the four operations with rational numbers. Represent situations with expressions that	https://www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-algebra-percent-word-problems/v/multistep-word-problems-example-3 https://www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-	7.NS.A.3, 7.RP.A.2

	include rational numbers.	algebra-percent-word-problems/v/multistep-word-problems-example-2 https://www.khanacademy.org/math/pre-algebra/pre-algebra-ratios-rates/pre-algebra-percent-word-problems/v/multistep-word-problems-example-1	
15	Solve equations that include rational numbers and have rational solutions.	https://www.youtube.com/watch?v=tIVkv0FG_1U https://www.youtube.com/watch?v=pFBiKzxe_5Y	7.EE.B.4.a, 7.EE.B.4, 7.NS.A.3
16	Write and solve equations to represent situations that involve rational numbers. Explain what the solution to an equation means for the situation.	https://www.ixl.com/math/grade-5/write-variable-equations-word-problems https://www.khanacademy.org/math/algebra/one-variable-linear-equations/alg1-linear-eq-word-probs/e/linear-equation-world-problems-2 https://www.khanacademy.org/math/algebra/one-variable-linear-equations/alg1-linear-eq-word-probs/v/basic-linear-equation-word-problem https://www.youtube.com/watch?v=me_WNQ7Ix_8	7.EE.B.4.a, 7.NS.A.3