What I have learnt about in grade 9 fractions

Throughout the unit of learning fractions. In the begging I have learnt how to use the number line to identify how to identify the integers. I have learnt that, if the fraction is on the left hand side it is a negative number and if it is on the right side it is a positive number. (picture)

Integers Q: How can you tell which integer is bigger? A: If the number is on the right hand side of the number line its usually bigger. example: Shratter

Adding/Subtracting fractions

For adding and subtracting fractions I have learnt that when we add or subtract the fraction, the fractions have to be the same denominator, or it wouldn't work. So for example (picture)

For example We have $\frac{3}{5} + \frac{4}{10}$ then we have to get the $\frac{3}{5}$ and multiply it by 2 to get the same denominator as $\frac{4}{10}$. $\frac{3}{5} \times 2 = \frac{10}{10} - \frac{6}{10} + \frac{4}{10}$ now we can do the equation. $\frac{6}{10} + \frac{4}{10} = \frac{10}{10}$ and then we have to reduce $\frac{10}{10} \div 10 = 1$ its the same as Subtracting.

Adding/subtracting integers

For adding integers if we have an equation that says (-6) + 8 then technically subtract, we do how many of the negatives can get rid of the positives. So since we have -6, and we have positive 8, the negative can get rid of 6 of the positive, than 2 of the positive would be left, and that's your answer, +2. For subtracting integers if we have a equation for example: (-9)-(-7), if its two negatives that are subtracting we just subtract, same as two positive numbers subtracting so the answer for (-9)-(-7) would be -16, and then we just add a negative sign if it was negative numbers subtracting and positive sign if positive numbers are subtracting. For a question like (-9) – (+6) than that is the same as adding, so the answer would be -15, and we would put a negative sign because the negative comes first in the equation.

Multiplying/ dividing fractions and reducing fractions.

For multiplying and dividing fractions, we just divide and multiply. So we don't have to change the denominator, we just divide/multiply the top number by the top number and the bottom number by the bottom number. For example (picture)

tor example $\frac{6}{5} = \frac{18}{20}$ answer and we reduce it. $\frac{18}{20} \div \lambda = \frac{9}{10}$ * How to reduce

Multiplying/ dividing integers

For multiplying and dividing integers, you just multiply and divide, but there are some rules, and those rules are: (photo)

$(+) \times (+) = (+)$ $(-) \times (-) = (+)$ $(-) \times (+) = (-)$ $(+) \times (-) = (-)$	$(+) \div (+) = (+)$ $(-) \div (\div) = (+)$ $(-) \div (+) = (-)$ $(+) \div (-) = (-)$	(+) = Positive (-) = Negative
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Square roots

Square roots is a number multiplied by the same number equals the square root of something so for example (photo)

 $\sqrt{25}$ = Square root of 25 is 5 because 5x5 50 5 times itself equals 25. $\sqrt{25} = 5$ = answer.

Reciprocal

Reciprocal is, in a fraction switching the denominator number and the numerator number for example (photo)

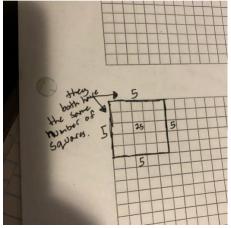
When we can't divide a fraction we do Something called Reciprocal. Reciprocal is switching the numerator and the denominator. $\frac{7}{10} \div \frac{5}{3} = -\frac{1}{50}$ and divide $60 - \frac{7}{10} \times \frac{3}{5} = \frac{21}{50}$ reciprocal Prover

Tenths and hundredths place

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Perfect Squares

Perfect squares is similar as square roots by the opposite, so 25 would be a perfect square be 5 times 5 is 25, so for example (photo)



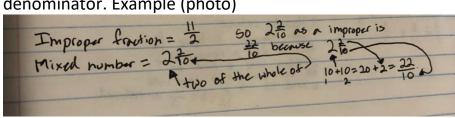
BEDMAS

when we do a equation with more than 2 numbers we solve it this way starting from the B to the S. The solving for the order of division and multiplication is the same, as well as addition and subtraction

Bedmas stands forB rackets 1^{st} E xponents 2^{nd} D ivision 3^{rd} M ultiplicaton 3^{rd} A ddition 4^{th} S ubtraction 4^{th}

Improper and Mixed number

Improper fraction is when the numerator number is higher than the denominator, usually the denominator is higher, but in improper the numerator is higher, so it is called the improper fraction. For the Mixed number there is a whole number and beside it is a fraction, so the whole number means there is a whole of the denominator. Example (photo)



One other thing I learnt about rational numbers

I have learnt that to estimate the square root of a imperfect square is to find the square root in between the imperfect square, for example (photo)

To find 29 I have to first find Which Square roots are beside 29. 5×5= 25 and 6×6= 36 so the answer 50 root of 29 is inbotween the square to 5 and 6 Go the answer to 29 would be - Something. 5.-