DynaNotes™ Review Guide

Grade 5 Math for STAAR™

Category 1 – Numbers, Operations, and Reasoning

PLACE VALUE

whole numbers												.	decimals		
billions			millions			thousands			ones			.	tenths	hundredths	thousandths
H	T	O,	H	T	O,	H	T	O,	H	T	O	.	tenths	hundredths	thousandths
4	7	2,	5	6	8,	1	4	6,	7	8	9	.	6	7	9

H represents the hundreds place, **T** is the tens place, and **O** is the ones place. **Example:** 5 is in the hundred millions place.

Commas separate the whole number sections. When reading numbers aloud, state the section name (*billion*, *million*, or *thousand*) when you reach each comma. A decimal point separates whole numbers from decimals. Say the word *and* before reading the numbers after the decimal point aloud.

Example 1: From left to right 472,568,146,789.679 is read as *four hundred seventy-two billion, five hundred sixty-eight million, one hundred forty-six thousand, seven hundred eighty-nine and six hundred seventy-nine thousandths.*

Example 2: 32.6 is read as *thirty-two and six tenths.*

COMPARING AND ORDERING NUMBERS

Symbol	Meaning	[illegible]
=	is equal to	6,12[illegible]
>	is greater than	6,215 > [illegible]
<	is less than	[illegible]25 < 6,21[illegible]

1. Write each number you want to compar[illegible]
2. Line up the same place values in the sa[illegible]
3. Starting from the left, compare the value [illegible]
4. If the numbers in a certain colu[illegible] are the sa[illegible] the next column (to the right) [illegible] are tho[illegible] numbers. Do this until the [illegible]
5. Compare the different nu[illegible]

Example: Compare 234,786.599 [illegible]
23[illegible],786.599 From left to right, firs[illegible] is differ[illegible]
23[illegible],863.2 thousands. Since [illegible] < [illegible], th[illegible]99 < 236,863.2

Order numbers f[illegible] to greatest (like [illegible]9) or from greatest t[illegible] 10.0, 9).

ROUNDING [illegible]

1. Find the place [illegible] you ar[illegible] ones o[illegible]ths).
2. Look at the numb[illegible] ri[illegible]
3. If that number is les[illegible] round up. [illegible] number is [illegible]n or equa[illegible] round up (i[illegible]se by one).

[illegible]: Round 34.65 [illegible] to the ne[illegible]t tenth. [illegible] rounds [illegible] becau[illegible] greater [illegible] or equal to 5. [illegible]4.6 rou[illegible] less t[illegible]5.

[illegible] exact am[illegible] you can [illegible] roundin[illegible] given pl[illegible] like millions o[illegible]

[illegible]: If Sam [illegible]8 lette[illegible] and mails 22 of th[illegible] how many [illegible] to the tens and subtract: [illegible]

ADDIT[illegible] SUBTR[illegible]TION

sum: result [illegible] numbers (the total)
difference: result of [illegible]racting numbers

To add or subtract [illegible]bers, line up the numbers by their p[illegible]ce value. Add or subtract each column starting from the right, regroup (carry or borrow), and then do the next column. Place commas and/or a decimal point in the answer as needed.

Example: [illegible] total mon[illegible] collected [illegible]

Fair Sal[illegible]	
Day 1	$1,[illegible]
Day 2	$12[illegible]
Day 3	$231.40
	1,474.05

Answer: $1,474.05

MULTIPLICATION AND DIVIS[illegible]N

multiplication: method to co[illegible] numbers; multiply **factors** together to [illegible] **product**; multiply columns starting [illegible]ght and regroup (carry); use a [illegible] place[illegible]

Example: A box holds 164 pens. How many total [illegible] are [illegible]xes?

$$\begin{array}{r} 164 \\ \times 12 \\ \hline 328 \\ +164\square \\ \hline 1{,}968 \end{array}$$

division: method to [illegible] number [illegible] parts; a **dividend** div[illegible] results in a [illegible] decide where to place the first [illegible] quotient; [illegible] the first digit of the quotient by the divisor; subtract and compare; bring down the ne[illegible] digit of the divi[illegible] continue; the[illegible] not divisib[illegible] or

Ex[illegible]: If Jay [illegible] splits 42 [illegible] into two bags, how many [illegible] balls are [illegible] each [illegible]

[illegible]le 2: [illegible] a sha[illegible] equally by 5 [illegible] is 9[illegible] of [illegible] per man.

$$\begin{array}{r} 96\ \text{R}4 \\ 5\overline{)484} \\ -45 \\ \hline 34 \\ -30 \\ \hline 4 \end{array}$$

FRACTIO[illegible]CIM[illegible]

[illegible] describ[illegible]e = $\frac{\text{numerator}}{\text{denominator}}$ **Example:** [illegible]

[illegible]er: num[illegible] includes [illegible] whole number and a fracti[illegible] make it a fra[illegible], mul[illegible] the denominator by the whol[illegible] er and add the product to the numerator; write this su[illegible] new numerator) over the denominator

[illegible]: Write the mixed [illegible]ber $4\frac{1}{2}$ as a fraction. [illegible]

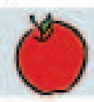
[illegible]er fraction: numerator is greater (larger) than denominator

[illegible] Write imp[illegible] fraction $\frac{7}{3}$ as a [illegible]r. Div[illegible] by 3. Whole number part [illegible] frac[illegible] part is $\frac{1}{3}$. **Answer:** $2\frac{1}{3}$

$$\begin{array}{r} 2\ \text{R}1 \\ 3\overline{)7} \\ -6 \\ \hline 1 \end{array}$$

common factor: [illegible]ctor shared by two or more numbers

[illegible]ple: The common factors of 6 and 9 are [illegible] and [illegible].
[illegible]ctors o[illegible]: [illegible], 2, [illegible], 6 (1 x 6 = 6 and 2 x 3 = 6)
[illegible]actor[illegible] 9: [illegible], [illegible], 9 (1 x 9 = 9 and 3 x 3 = 9)



fract[illegible] addition and subtraction: fractions must have a common denominator; add or subtract the numerators, but [illegible]ep the denominator the same; if the numerator of a fraction [illegible] equal to its denominator, then the fraction equals 1

Example: [illegible] + $\frac{1}{4}$ + $\frac{2}{4}$ = $\frac{4}{4}$ = 1

decimal: fraction with a denominator such as 10, 100, or 1,000 **Example:** 0.6 = $\frac{6}{10}$

Example: model of the fraction $\frac{34}{100}$ and the decimal 0.34

EQUIVALENT FRACTIONS

equivalent fractions: fractions that have the same amount; to find equivalent fractions, multiply or divide both the numerator and the denominator by the same, non-zero number

Example: $\frac{1}{6}$ = [illegible] = $\frac{2}{12}$ The numerator (1) and the denominator (6) are both multiplied by 2, so $\frac{1}{6}$ and $\frac{2}{12}$ are equivalent fractions.

[illegible]th a [illegible]es

[illegible] Tom [illegible]st pie? [illegible]2, ...

[illegible] and $\frac{3}{5}$ [illegible]nator.

multiple of the denominators of two or more fractions).

Answer: Shelly ($\frac{5}{10}$ > $\frac{4}{10}$, so $\frac{1}{2}$ > $\frac{2}{5}$)

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CR Symbol indicates section aligns to Texas College and Career Readiness Standards.