Warm-up



Decimals

Decimal Place Value Chart

Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones	Decimal point	Tenths	Hundredths	Thousandths	Ten-thousandths	Hundred thousandths	Millionths
			3	6	8	4	.	2	6				

Image 1: Decimal Place Value chart.

Key words for operations

The words that indicate operations math word problems are:

add	Subtract	Multiply	Divide
addition, sum, both, combined, altogether, more than, perimeter, increase, plus total deposit	subtract, remain, less than, decrease, take away, minus, fewer, how many more are needed, difference withdraw	times, double, of, product, twice, area, each, per, / triple a rate.	divided, half, average, split, quotient, equal groups, share equally, out of, quarter, distribute, finding out cost of each item.

Rounding Rules

-Underline place value you are rounding to

-Look at the Digit to the right

5 or greater then increase by 1

4 or less then stays the same

-Keep everything before the underline the same



Example) Round to the ones place

a) 19.26 → 19

b) 47.82 → 48

rounding to a whole number.

Ex) Round 18.679 to the tenths place → 18.7

Ex) Round 14.364 to the tenths place → 14.4

Ex) Round to the hundredths

a) 14.867



b) 0.562



c) 15.931



d) 16.896

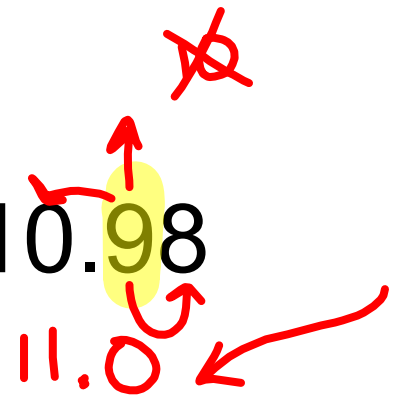


Round to the tenths

e) 7.46



f) 10.98



Estimating



- Round to the ones place and drop the decimal part.

Example)

Estimate the sum of the following

12.46 + 10.21 + 15.07

12 + 10 + 15

37

12
10
+ 15

37

Front-End Estimation

-Another form of estimating

-We just cut off the decimal part and use the numbers in front of decimal and add or subtract.

Ex)

$$5.45 + 9.89 + 3.53 + 6.03$$

$5 + 9 + 3 + 6$

$14 + 3 + 6$

$17 + 6$

23

We will just use cut off the decimal

Estimate the difference

14.15 - 9.56

14 - 10

4

13 10
0 15
14.15
- 9.56
4.59

Find the actual

Round each number to the nearest tenth.

1)	8.23	_____	6)	3.46	_____
2)	5.24	_____	7)	5.24	_____
3)	9.38	_____	8)	8.45	_____
4)	2.31	_____	9)	9.69	_____
5)	9.46	_____	10)	2.45	_____

Round each decimal to the nearest whole number

1)	9.231	_____	6)	1.775	_____
2)	3.272	_____	7)	4.859	_____
3)	6.318	_____	8)	8.854	_____
4)	3.337	_____	9)	9.248	_____
5)	3.556	_____	10)	9.958	_____