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Mathematics 4
Microlearning Module
QUARTER 1 – Module 12

Estimating the Sum and Difference of Two Numbers by Rounding the Numbers

Microlearning Module

REGION XII - DIVISION OF SULTAN KUDARAT

Mathematics 4
Microlearning Module (MLM)
Quarter 1 – Module 12: Estimating the Sum and Difference of Two Numbers by Rounding the Numbers.
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Name: _____ Grade & Sec: _____ Score: _____
Subject:_____Mathematics_____ Quarter:_____1_____ MLM No.__12__.
Teacher: _____
Competency: Estimate the sum and difference of two 5- to 6-digit numbers
              by rounding the addends to the nearest large place value of the
              numbers

A. Look Back!

Encircle the number that can be rounded to the given number.

1.**100 000**

177 209	165 021	155 297	145 143

2. **85 000**

84 394	84 452	84 478	85 411

3. **7 000**

6 223	6 375	6 478	65 411

B. What's New?

Shrimp Harvest

Mr. Orgo's fishpond harvested 383 266 kilos of shrimp last year and 286 932 kilos this year. Estimate his total harvest in two years.
What is the answer?

C. What Is It?

How to estimate the sum?

To estimate sums, round off the addends to the **highest possible place value** before adding. For a closer estimate, **round off to the next lower place value or use adjusted front-end estimation.**

Round off to the highest possible place value

383 266 - rounds off to 400 000   ⟶   400 000

\+ 286 932 - rounds off to 300 00   ⟶   + 300 000

about   700 000

Round off to the next lower place value

383 266 - rounds off to 380 000   ⟶   380 000

\+ 286 932 - rounds off to 290 00   ⟶   + 290 000

about   670 000

Here's another way to estimate!

Add the front-end digits and adjust the remaining digits.

383 266   ⟶   about 80 000

\+ 286 932   ⟶   about 90 000

500 000   +   170 000   = 670 000

Study these examples.

Estimate the sum:

Round to the highest place value

528 943 -   rounds off to   500 000

\+ 450 234 –   rounds off to   + 500 000

about 1 000 000

Round off to the next lower place value

528 943 -   rounds off to   530 000

\+ 450 234 –   rounds off to   + 450 000

about 980 000

Add the front-end digits and adjust the remaining digits.

528 943   ⟶   about 30 000

\+ 450 234   ⟶   about 50 000

900 000   +   80 000   = 980 000

How to estimate the difference?

To estimate the difference, **round off to the highest possible place value**, or **round off to the next lower place value** for a closer estimate.

Study this example.

There were 12 852 visitors on the first day of the Kapeonan Festival and 16 743 on the second day. About how many more visitors were there on the second day than on the first day?

https://www.facebook.com/KapeonanF

Round off to the highest possible place value

16 743 – rounds off to 20, 000 ⟶ 20 000
-12 852 – rounds off to 10,000 ⟶ -10 000
about   10 000

Round off to the next lower place value

16 743 – rounds off to 17 000 ⟶ 17 000
-12 852 – rounds off to 13 000 ⟶ -13 000
about   4 000

D. Let's Try!

A. Estimate the sum by rounding off to the highest place value.

1. 82 927 ⟶
+ 20 612 ⟶

2. 932 285 ⟶
+ 543 408 ⟶

3. 297 395 ⟶
+ 19 320 ⟶

4. 28 209 ⟶
+ 87 087 ⟶

5. 286 398 ⟶
+ 495 508 ⟶

B. Estimate the difference by rounding to the highest place value.

1. 59 296 ⟶
  - 36 934 ⟶

2. 948 308 ⟶
  - 645 296 ⟶

3. 859 234 ⟶
  - 35 011 ⟶

4. 84 675 ⟶
  - 49 123 ⟶

5. 498 567 ⟶
  -32 745 ⟶

E. Let's Evaluate

A. Estimate the sum by rounding to the highest place value.

1. 27 894 ⟶
  + 45 032 ⟶

2. 385 035 ⟶
  +   89 234 ⟶

3. 845 910 ⟶
+ 756 074 ⟶

4. 94 395 ⟶
  + 78 495 ⟶

5. Gestosani Beach Resort in Lebak earned Php 673 356 in January and Php 372 923 in February. About how much was their total amount earned?

   Show your answer.

B. Estimate the difference by rounding off to the highest place value.

1. 97 143   ⟶
  - 55 065   ⟶

2. 374 501   ⟶
  - 68 253 ⟶

3. 834 091 ⟶
  - 94 495 ⟶

4. 773 971 ⟶
  - 451 824 ⟶

5. Mr. Matabalao harvested 728 945 coconuts in the year 2022, and 575 528 in the year 2023. About how many more coconuts harvested in the year 2022 than in 2023?

   Show your answer.

   Challenge!

   1. Mr. Capulot had a long ride on his motorcycle. He reached Sunlight City, which is 534 295 meters from Mountain View Town. The following day, he continued riding and reached Ocean City, which is 867 102 meters from Sunlight City. What is the estimated distance Mr. Capulot traveled in two days?

   _____

   2. My mother went shopping to buy home appliances for our new house. She spent Php 105 562 for all the appliances. If she has 182 175 cash, how much money has she left?

   _____

F. References

Coronel, Carmelita C., Merly M. Pineda, and Teresita T. Tungol. *Mathematics for Better Life 4* Learner's Material. 2010. Quezon City: SD Publications

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REGION XII - DIVISION OF SULTAN KUDARAT

Math Grade 4 Q1 LC 12

Answer Key

A. Look Back

Encircle the number that can be rounded to the given number.

1. 100 000= (145 143)   2. 85 000= (85 452)   3. 7 000= (7 218)

D. Let's Try

A. Estimate the sum by rounding off to the highest place value.

1. 82 927 → 80 000		2. 932 285 → 900 000	
+ 20 612 → 20 000		+ 543 408 → 500 000	
100 000		1 400 000	

3. 297 395 → 300 000   4. 28 209 → 30 000
   + 19 320 → 20 000   + 87 087 → 90 000
          320 000 5. 286 398 → 300 000   120 000
              + 495 508 → 500 000
                      800 000

B. Estimate the difference by rounding to the highest place value.

1. 59 296 → 60 000   2. 948 308 → 900 000
   - 36 934 → 40 000   645 296 → 600 000
         20 000   300 000
3. 859 234 → 90 000   4. 84 675 → 80 000
   - 35 011 → 40 000   - 49 123 → 50 000
         65 000   5. 498 567 → 500 000   30 000
                   - 32 745 → 30 000

E. Let's Evaluate

A. Esimate the sum by rounding to the highest place value.
              470 000

1. 27 894 → 30 000
   + 45 032 → 50 000
          80 000
2. 385 035 → 400 000
   + 89 234 → 90 000
          490 000
3. 845 910 → 800 000
   + 756 074 → 800 000
          1 600 000
4. 94 395 → 90 000
   + 78 495 → 80 000
          170 000
5. Php 673 356 → 700 000
   + Php 372 923 → 400 000
          1 100 000

B. Esimate the difference by rounding to the highest place value.

1. 97 143 → 100 000
   - 55 065 → 60 000
          40 000
2. 374 501 → 400 000
   - 68 253 → 70 000
          330 000
3. 834 091 → 800 000
   - 94 495 → 90 000
          710 00
4. 773 971 → 800 000
   - 451 824 → 500 000
          300 000
5. 728 945 → 700 000
   - 575 528 → 600 000
          100 000

Challenge!

1. 534 295 → 500 000   2. 182 175 → 200 000
   + 867 102 → 900 000 - 105 562 → 100 000
          1 400 000   100 000