STRAND 2: ADDITION AND SUBSTRACTION

1. Add and substract numbers using "add or substract " by the same number method.
2. Add and substract whole numbers and decimal numbers
3. Estimate and round to the nearest 10, 100, 1000 etc
4. Solve word problems that involves addition and substraction of whole numbers and decimal numbers
5. Add and substract two fraction with same denominations
6. Add and substract two faction with different denomination
7. Solve word problems that involves additions and substraction of fraction

NOTES

ADD AND SUBSTRACT NUMBERS USING "ADD AND SUBSTRACT" BY THE SAME NUMBER (MENTAL METHOD)

1. **Mental methods**

   In addition:

   i. Find numbers that can add to first number(make number seems easy) and substract same number to the second number that adding.

   EXAMPLE: numbers 398 + 235 could be change to 400 + 233 (add 2 to 398 and substract 2 from 235)

   This will make it easy to add menatally to get **633**

   In substraction:

   i. Find numbers that can substract form both numbers and it will seems easy as it shown in substraction

   Example : 5002 – 2637 could be change to 4999 – 2634 (subtract 3 from both numbers) which mentally calculate to get **2365**

ADD AND SUBSTRACT WHOLE NUMBERS AND DECIMAL NUMBERS

1. Instead of mental method, we can do addition and subtraction by putting them vertically, lining up place value column (do so when adding and subtracting decimal numbers)

   Example1 : add 3574 + 4729 + 846

Ones	tens	hundreds	thousands	
3 5 ^{1}7 4	3 ^{1}5^{1}7 4	^{2}3^{1}5^{1}7 4	^{2}3^{1}5^{1}7 4	○rename as 1 ten, (transfer 9 ones
4 7 2 9	4 7 2 9	4 7 2 9	4 7 2 9	○rename as 1 hundred (transfer 4 tens
+ 8 4 6	+ 8 4 6	+ 8 4 6	+ 8 4 6	○rename as 2 thousands (transfer 1 hundred
9	4 9	1 4 9	9 1 4 9	○add the final value

   Example 2: 496 – 228

–	4	9	6
	2	2	8
	2	6	8

   Example 3: 398.4 + 42.3

+	3	9	8	.	4
		4	2	.	3
	4	4	0	.	7

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Example 4: 56. 743 – 14.620

–	5	6	.	7	4	3
	1	4	.	6	2	0
	4	2	.	1	4	3

ESTIMATE AND ROUND THE NEAREST 10,100,1000

Example: 59 + 42

59 ---- 60 (round 59 to nearest 10, look at the number after ten value if its 5 or more than 5 then round up by given 1 to tens value then replace the rest with zero (0))

42------ 40 (the next number after ten value is less than 5 therefore, no round up but still replace the rest with zero that's why 40 is the nearest 10 of 42)

60 + 40 = **100**. (thus if you add 59 and 42 your answer is 101...rounding to nearest 10 will get 100)

Example2: 496 – 228 (round to nearest 100 before subtracting)

496 ----500

228----200

Therefore, your answer is **300.**

SOLVING WORD PROBLEMS THAT INVOLVES ADDITION AND SUBSTRACTIO OF WHOLE NUMBER AND DECIMAL NUMBER.

- In every word problems, you need to read it until you understand the situation. Noting all number shown in word problems may help you.

Example: Iome had $346 in his bank account. He withdrew $98. How much money remains in his bank account?

Notes that $346 in bank account, withdrew means take away $98. words REMAINS means result when doing subtraction

Therefore, should be $346 - $98 and your answer is $268(amount of money remain in the bank)

ADD AND SUBSTRACT FRACTION (SAME DENOMINATOR AND WITH DIFFERENT DENOMINATOR) AND SOLVE WORD PROBLEMS

Adding and substracting fraction with same denominator

- How can you add or substract two fraction? If the fraction has the same denomination, just add or substract that numerator and use the same denominators

Example 1: $\frac{3}{8}+\frac{1}{8}=\frac{3+1}{8}=\frac{4}{8}$

Example 2: $\frac{4}{7}-\frac{1}{7}=\frac{4-1}{7}=\frac{3}{7}$

Add or substract fraction with different denominators

- To add or substract fraction that have unlike or different denominator, rewrite them as fraction with same or common denominator

Example: $\frac{5}{8}+\frac{1}{2}$ (first find equivalent fraction with a common denomination)

$\frac{1}{2}$ is an equivalent fraction of $\frac{4}{8}$ which is having same denominator with $\frac{5}{8}$, so you can do the addition using the equivalent fraction $\frac{5}{8}+\frac{4}{8}=\frac{5+4}{8}=\frac{9}{8}$

In other way, you can use cross multiplication to add or substract fraction when having different denominator

Example: $\frac{3}{8}+\frac{1}{2}=\frac{(3\,x\,2)+(8x1)}{(8x2)}=\frac{6+8}{16}=\frac{14}{16}$

FORM 2 ACTIVITIES

Answer the following question by using your exercise book to show all your works. Only use black or blue pen. Work neat and clean

TOPIC 2: ADDITION AND SUBSTRACTION

1. Add and substract numbers using "add or substract " by the same number method

Exercise 1: Use mental method to add and substract the following

a. 297 +456
b. 305 + 452
c. 692 + 458
d. 796 + 456
e. 2979 + 4565
f. 3003 – 634
g. 5707 – 697
h. 7674 – 2395
i. 8942 – 2893
j. 442 – 2395

2. Add and substract whole numbers and decimal numbers

Exercise 2: Add and substract the following

a. 367 + 72 + 55
b. 531 + 408 +269
c. 2805 + 3217 + 2913
d. 3586 + 493 + 6841 + 972
e. 21953 + 5662 + 27680 + 56973
f. 427 – 63
g. 543 – 118
h. 624 – 236
i. 2848 – 756
j. 8325 – 5917
k. 420631 – 68842
l. 54 – 0.55
m. 24.7 – 3.0
n. 651.28 – 26.3
o. 21.46 – 3.32
p. 763.5 – 21.49
q. 927.648 + 341.201
r. 657.08 – 214.87

3. Estimate and round to the nearest 10,100 and 1000

Exercise 3:

1. Round the following to nearest 10 before do your calculation.
   a. 114 + 87
   b. 96 + 29
   c. 543 – 362
   d. 967 – 139
2. Round the following to nearest 100 before do the addition and substraction
   a. 8219 – 2046
   b. 138 + 253 + 502
   c. 2615 + 3847
   d. 6152 – 3973

4. Solve word problems that involves addition and substraction of whole numbers and decimal numbers

Exercise 4: Read the following word problems and show your works

1. Lotu sold his motorbike for $750 and borrowed money from his brother Lofia to buy a second hand car cost $220. How much did lotu borrowed?
2. Lotu and Naki took turns to drive 520km from Suva to Nadi.Lotu drove 338km.how many kilometres did Naki drive?
3. Unuaki was packing for a place trip to Fiji. She is allowed to take 20kg in the plane. If her suitcase is 2.5kg, her clothes weigh is 13.8kg and cosmetics were 1.8kg. Calculate the total weigh of her lugaage. How much more or less than her allowance
4. Samanunu bought some fruits that were $16.35. how much change did he get from $20
5. Naki picked 96.4kg of apples. She picked 78.7kg in the morning and rest in the afternoon. How much more did she picked
6. In the first week, Naki picked 367.8kg of apples. In the second week she picked 459.3kg. How many kilograms of apples did she picked altogether?
7. The container – load of vi weighed 349.2kg. If the container weighed 55.6kg. What was the weight of vi in the container

5. Add and substract two fraction with same denomination and with different denomination. Also solve word problems that involves additions and substraction of fraction.

14 Adding and subtracting common fractions.

1) Add the following fractions with common denominators:

a) $\frac{1}{2}+\frac{1}{2}$ b) $\frac{1}{3}+\frac{1}{3}$ c) $\frac{1}{5}+\frac{2}{5}$ d) $\frac{5}{8}+\frac{2}{8}$ e) $\frac{2}{7}+\frac{3}{7}$ f) $\frac{3}{4}+\frac{1}{8}$ g) $\frac{2}{3}+\frac{4}{6}$

2) Subtract the following fractions:

a) $\frac{3}{8}-\frac{1}{8}$ b) $\frac{4}{5}-\frac{2}{5}$ c) $\frac{4}{7}-\frac{1}{7}$ d) $\frac{5}{8}-\frac{3}{8}$ e) $\frac{7}{13}-\frac{5}{13}$ f) $\frac{1}{2}-\frac{1}{4}$ g) $\frac{1}{3}-\frac{1}{5}$

3) Find the lowest common multiples of the following numbers:

a) 2,4 b) 3,6, c) 2,4,12 d) 5,10, 15 e) 3,4,6 f) 3,5,10

4) Add the following fractions with different denominators(you may use the fraction chart):

a) $\frac{1}{2}+\frac{1}{3}$ b) $\frac{1}{2}+\frac{1}{4}$ c) $\frac{1}{5}+\frac{1}{3}$ d) $\frac{3}{4}+\frac{1}{3}$ e) $\frac{1}{7}+\frac{1}{2}$ f) $\frac{3}{7}+\frac{1}{3}$

5) Subtract these fractions with different denominators:

a) $\frac{3}{4}-\frac{1}{2}$ b) $\frac{1}{5}-\frac{1}{10}$ c) $\frac{4}{5}-\frac{3}{10}$ d) $\frac{5}{7}-\frac{3}{14}$ e) $\frac{5}{6}-\frac{1}{2}$ f) $\frac{1}{3}-\frac{2}{9}$

g) $\frac{1}{2}-\frac{3}{8}$ h) $\frac{5}{6}-\frac{1}{4}$ i) $\frac{9}{10}-\frac{3}{4}$ j) $\frac{5}{8}-\frac{1}{4}$ k) $\frac{3}{5}-\frac{1}{10}$

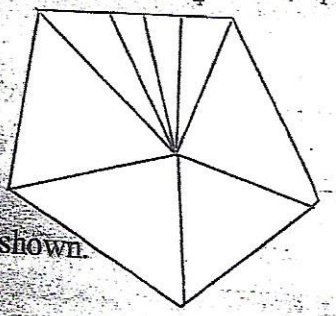
6) Sesi spent $\frac{1}{5}$ of her money on food and $\frac{2}{5}$ of her money on a book.

a) What fraction did she spend altogether?

b) What fraction of her money was not spent?

7) Nunu and Naki moved $\frac{7}{8}$ of the books in a library. Nunu moved $\frac{5}{8}$ of the books. What fraction did Naki move?

8) Vea spent $\frac{2}{5}$ of her spare time reading and $\frac{1}{4}$ of her spare time talking on the phone.



a) Illustrate this on the diagram shown.

b) Calculate $\frac{2}{5}+\frac{1}{4}$

c) What fraction of her spare time remained?