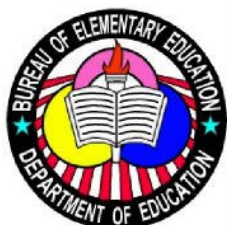


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Modified In-School Off-School Approach Modules (MISOSA)  
**Distance Education for Elementary Schools**  
**SELF-INSTRUCTIONAL MATERIALS**



**ESTIMATION OF  
FRACTIONS**



Department of Education  
**BUREAU OF ELEMENTARY EDUCATION**  
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Pasig City

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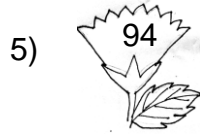
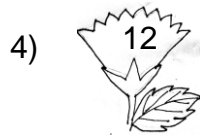
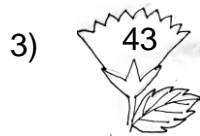
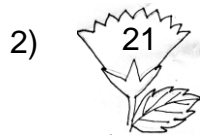
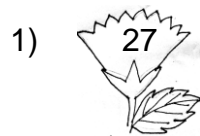
## ESTIMATION OF FRACTIONS

**Objective:** Estimate fractions as close to 0,  $\frac{1}{2}$  or 1

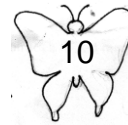
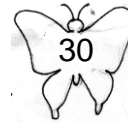
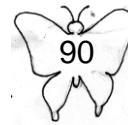


Round off the numbers in Column A. Look for the answer in Column B.

A



B

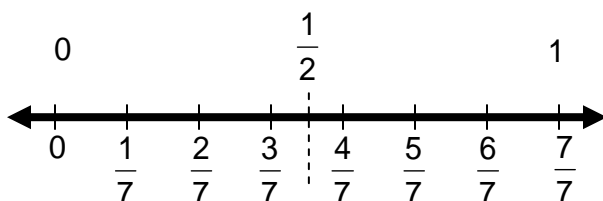




## Study and Learn

Estimating fractions is not entirely new to you.

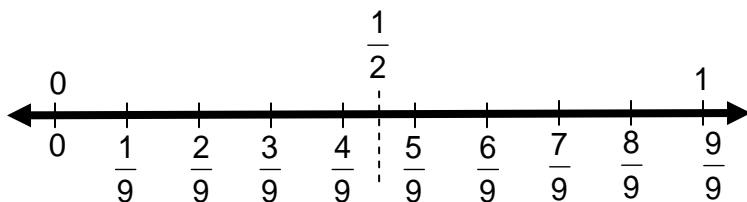
a. Look at the number line below.



Which fractions are close to 0,  $\frac{1}{2}$  or 1?

- $\frac{1}{7}$  and  $\frac{2}{7}$  are close to 0. The numerators 1 and 2 are very small compared to the denominator.
- $\frac{3}{7}$  and  $\frac{4}{7}$  are close to  $\frac{1}{2}$ . The numerator 3 is about half of 7. 4 is more than half but not nearly equal to 7.
- $\frac{5}{7}$  and  $\frac{6}{7}$  are close to 1. Their numerator and denominator are nearly equal. 5 and 6 are nearly equal to 7.

b. Let's try another example.



- Which fractions are close to 0? Why?

$\frac{1}{9}$ ,  $\frac{2}{9}$  and  $\frac{3}{9}$  are close to 0. The numerators 1, 2 and 3 are very small compared to the denominator 9.





- Which fractions are close to  $\frac{1}{2}$ ? Why?

$\frac{4}{9}$ ,  $\frac{5}{9}$  and  $\frac{6}{9}$  are close to  $\frac{1}{2}$ . The numerator 4 is about half the denominator 9. The numerators 5 and 6 are more than half but not nearly equal to the denominator 9.

- Which fractions are close to 1? Why?

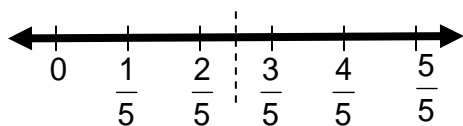
$\frac{7}{9}$  and  $\frac{8}{9}$  are close to 1. The numerators 7 and 8 are nearly equal to the denominator.

c. Let's try estimating without using a number line.

- $\frac{2}{3}$  is close to 1 because 2 is nearly equal to 3.
- $\frac{3}{10}$  is close to 0. The numerator 3 is very small compared to the denominator 10.
- $\frac{5}{8}$  is close to  $\frac{1}{2}$ . Why?



Using the number line tell which fractions are close to 0,  $\frac{1}{2}$  or 1.



1. \_\_\_\_ is close to 0. The numerator \_\_\_\_ is very small compared to the denominator 5.
2. \_\_\_\_ are close to  $\frac{1}{2}$ . The numerators are \_\_\_\_ are about half the denominator.
3. \_\_\_\_ is close to 1. The numerator \_\_\_\_ is nearly equal to the denominator.





## *Wrap Up*

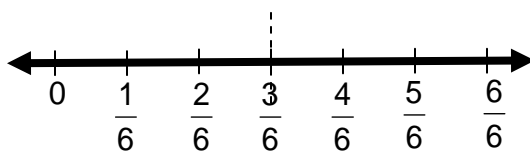
A fraction is close to:

- 0 when the numerator is very small compared to the denominator.
- $\frac{1}{2}$  when the denominator is about half the denominator.
- 1 when the numerator and the denominator are nearly equal.



## *On Your Own*

A. Look at the number line. Write the correct answer on your notebook.



1. What fractions are close to 0?
2. What fractions are close to  $\frac{1}{2}$ ?
3. What fractions are close to 1?





B. Choose the letter of the correct answer.

1. Which fraction is close to 0?

a.  $\frac{1}{10}$

b.  $\frac{6}{8}$

c.  $\frac{5}{7}$

2. \_\_\_\_\_ is close to  $\frac{1}{2}$ .

a.  $\frac{5}{6}$

b.  $\frac{1}{5}$

c.  $\frac{5}{9}$

3.  $\frac{7}{8}$ ,  $\frac{8}{9}$  and  $\frac{9}{10}$  are close to 1. Which else is close to 1?

a.  $\frac{2}{7}$

b.  $\frac{5}{7}$

c.  $\frac{2}{5}$

Check your answer with the answer key.

If you get...

5-6 Excellent! You may now proceed to the next lesson.

3-4 You need to review the processes you missed.

0-2 You need to repeat the whole process. Ask your teacher or elder to help you.





**Key to Correction**  
**ESTIMATION OF FRACTIONS**

REVIEW

- 1) b
- 2) c
- 3) d
- 4) e
- 5) a

TRY THESE

- 1)  $\frac{1}{5}$ , 1
- 2)  $\frac{2}{5}$  and  $\frac{3}{5}$ , 2 and 3
- 3)  $\frac{4}{5}$ , 4

ON YOUR OWN

A.

- 1)  $\frac{1}{6}$
- 2)  $\frac{2}{6}$ ,  $\frac{4}{6}$
- 3)  $\frac{5}{6}$

B.

- 1) a
- 2) c
- 3) b

