



CHAPTER TEST: FRACTIONS, DECIMALS, SIGNIFICANT FIGURES

NAME		DATE	
CLASS		SCORE	
PARENT'S SIGNATURE		MR EMMANUEL RECANEL	

PART 1: USING CALCULATOR

1. Solve $\frac{\sqrt[3]{39} + \sqrt{12}}{\pi - \sqrt{5\frac{2}{9} \times \frac{1}{4} + 6.7}}$

(a) Write your answer as it appears in your calculator. _____

(b) Write your answer correct to

(i) nearest whole _____

(ii) 1 decimal place _____

(iii) 3 significant figures. _____

(iv) 4 significant figures _____

(v) 1 significant figure _____

2. Solve $\frac{(16.874)^3 + \sqrt{2000} \times [7.6 - (5.8)^2]}{9.6 \times 4.791 \times 0.235}$.

(a) Write your answer as it appears in your calculator. _____

(b) Write your answer correct to

(i) nearest whole _____

(ii) 2 decimal places _____

(iii) 5 significant figures. _____

(iv) 3 significant figures _____

(v) 1 significant figure _____

PART 1: WITHOUT USING CALCULATOR

1. Round off the following numbers to the nearest 10, 100, 1000 respectively.

Given	Nearest 10	Nearest 100	Nearest 1000
(a) 2716			

2. Round off the following numbers to 1 decimal places, 2 decimal places and 3 decimal places respectively

Given	To 1 d.p.	To 2 d.p.	To 3 d.p.
(a) 0.06585			

3. State the number of significant figures in each of the following:

(a) 1.0780 _____

(c) 0.00063 _____

(b) 991 000 _____

(d) 59 007.0 _____

4. Determine whether each of the following numbers is a rational number or irrational.

(a) $\frac{-5}{7}$ _____

(c) π _____

(b) $\sqrt{125}$ _____

(d) $\sqrt{\frac{25}{16}}$ _____

5. Compare by writing $>$, $<$, or $=$ on the space below.

9.8×1.2 _____ 9.7×1.3

6. Arrange in ascending order:

$\frac{1}{3 \times 4}$, $\frac{1}{3} - 0.3$, $\frac{1}{20}$

7. Do the following operations.

(a) $5\frac{2}{7} + 14\frac{1}{7}$

(e) $2\frac{1}{4} - 1\frac{1}{10}$

(b) $16 - 3\frac{2}{5} - 7\frac{3}{4}$

(f) $\frac{1}{3} + \frac{4}{9} \times \left(\frac{1}{2}\right)^2$

(c) $5\frac{3}{7} \times \frac{7}{10}$

(g) $1\frac{1}{2} \times 2\frac{2}{3} \times 3\frac{3}{4} \times 4\frac{4}{5}$

(d) $22\frac{1}{2} \div 2\frac{1}{4}$

(h) $\frac{2}{3} \div \frac{3}{2} \div \frac{5}{8}$

8. Do the following decimals.

(a) $1.845 \div 0.15$

(c) $4.3 - 3.904$

(b) 0.27×0.08

(d) $14.72 + 1.2 + 0.034$

9. (a) Convert $\frac{8}{15}$ into a decimal. Write it in its short form.

(b) Change $4.2333\dots$ into a (rational) fraction form.

(c) Find the difference between $\frac{5}{9}$ and the decimal $0.16161616\dots$

10. A class has 40 students. $\frac{5}{8}$ of the class are boys. $\frac{3}{5}$ of the girls wear eyeglasses. How many girls do not wear eyeglasses?

11. The dimensions of a rectangular field are 20 meters and 15 meters, correct to the nearest meter.

(a) Find the upper and lower boundaries of the length of the rectangle.

Answer: _____ $\leq l$ m < _____

(b) Find the upper and lower boundaries of the width of the rectangle.

Answer: _____ $\leq w$ m < _____

(c) Find the upper and lower boundaries of the perimeter of the rectangular field.

Answer: _____ $\leq P$ m < _____

(d) Find the upper and lower boundaries of the area of the rectangular field.

Answer: _____ $\leq A$ m² < _____

12. Leila's height is 1.58 m correct to the hundredths place.

Fabian's height is 1.8 m correct to the tenths place.

(a) Write the upper and lower boundaries of Leila's height.

Answer: _____ $\leq L$ m < _____

(b) Write the upper and lower boundaries of Fabian's height.

Answer: _____ $\leq F$ m < _____

(c) Find the largest possible difference of Leila's and Fabian's height.

13. Eight students are planning to share equally the cost of a CD player.
If one of them withdraws from the arrangement and the remaining students share equally the entire cost of the CD player, find the amount of increase that each student must pay then.
14. In a bag with small marbles, $\frac{1}{4}$ of the marbles are green, $\frac{1}{8}$ of them are blue, $\frac{1}{12}$ are yellow and the rest are white marbles. If there are 26 white marbles,
(a) How many marbles are there in the bag?
(b) How many blue marbles are there?

FREEBIE +3

How many proper fractions (reduced form) can you make using the digits from 1 to 9?

FREEBIE +2

Find the value of the expression:

$$\left(1 - \frac{1}{2}\right) \times \left(1 - \frac{1}{3}\right) \times \left(1 - \frac{1}{4}\right) \times \left(1 - \frac{1}{5}\right) \times \dots \times \left(1 - \frac{1}{15}\right) \times \left(1 - \frac{1}{16}\right)$$