Kingdom of Saudi Arabia
Ministry of Education
Jazan University
Faculty of Science
Mathematics Department

المملكة العربية السعودية
وزارة التـــعليـــم
جامـــعة جـــازان
كليـة العـــلوم
قسم الرياضيات

Assignment-1

Student Name:———————————— Course Title: General Mathematics.

Due Date: Next Week in Class. Course Code: Math-101.

Answer the following questions.

(Q1.) Put true or false of the following problems. (١) ضع علامة صح أو خطاء للتالي.

1. $a+b=b+a$ (✓).
2. $a+b=b-a$ (✗).
3. $a\cdot b=b\cdot a$ (✓).
4. $a\div b=b\div a$ (✗).
5. $(a+b)+c=a+(b+c)$ (✓).
6. $(a-b)-c=a-(b-c)$ (✗).
7. $(a\cdot b)\cdot c=a\cdot(b\cdot c)$ (✓).
8. $(a\div b)\div c=a\div(b\div c)$ (✗).
9. $(-3)^{-1}=3$ (✗).
10. $(-3)^{0}=0$ (✗).
11. $(-3)^{-1}=\dfrac{-1}{3}$ (✓).

(Q2.) Evaluate the following. (٢) أوجد القيم التالية.

1. $6+6^{-1}=$
2. $\dfrac{2}{-3}\cdot\dfrac{9}{2}=$
3. $\dfrac{2}{3}+\dfrac{5}{2}=$
4. $\dfrac{7}{3}-\dfrac{-7}{3}=$
5. $\dfrac{-3}{7}+\dfrac{1}{5}=$
6. $\left(\dfrac{4}{3}-\dfrac{1}{5}\right)\div 3=$

1. $6 + 6^{-1} = 6 + \frac{1}{6} = \frac{36+1}{6} = \frac{37}{6}$

2. $\frac{2}{-3} \cdot \frac{9}{2} = -\frac{18}{6} = -3$

3. $\frac{2}{3} + \frac{5}{2} = \frac{4+15}{6} = \frac{19}{6}$

4. $\frac{7}{3} - \frac{7}{3} = \frac{14}{3}$

5. $\frac{-3}{7} + \frac{1}{5} = \frac{-15+7}{35} = \frac{-8}{35}$

6. $\left(\frac{4}{3} - \frac{1}{5}\right) \div 3 = \frac{20-3}{15} = \frac{17}{15} \div 3$

$\frac{17}{15} \cdot \frac{1}{3} = \frac{17}{45}$

7. $\left(2 + \frac{1}{3}\right)^{-1}$
8. $\left(\frac{1}{3} - \frac{2}{3}\right)^{-1} =$
9. $\left(-6 + \frac{5}{3}\right)^{-1} =$
10. $\left(\frac{1}{6} \div \frac{5}{3}\right)^{-1} =$

7. $\left(2 + \frac{1}{3}\right)^{-1} = \frac{6+1}{3} = \left(\frac{7}{3}\right)^{-1} = \frac{3}{7}$

8. $\left(\frac{1}{3} - \frac{2}{3}\right)^{-1} = \left(\frac{-1}{3}\right)^{-1} = -3$

9) $\left(-6 + \frac{5}{3}\right)^{-1} = \frac{-18+5}{3} = \left(\frac{-13}{3}\right)^{-1} = -\frac{3}{13}$

10) $\left(\frac{1}{6} \div \frac{5}{3}\right)^{-1} = \left(\frac{1}{6} \cdot \frac{3}{5}\right)^{-1} = \left(\frac{3}{30}\right)^{-1} = \left(\frac{1}{10}\right)^{-1}$

$= 10$

(Q3.) Find the multiplicative and additive inverse of the following values.

(٣) أوجد المعكوس الجمعي و المعكوس الضربي للقيم التالية.

List of problems		
Numbers	additive inverse	multiplicative inverse
$\frac{-3}{5}$	$+\frac{3}{5}$	$-\frac{5}{3}$
7	-7	$\frac{1}{7}$
-9	$+9$	$-\frac{1}{9}$
$\frac{3}{5}$	$-\frac{3}{5}$	$\frac{5}{3}$
π	$-\pi$	$\frac{1}{\pi}$