Problem ②: 85 (20%) 90 (20%) 75 (20%)

$\Rightarrow \left(85 \times \frac{20}{100}\right) + \left(90 \times \frac{20}{100}\right) + \left(75 \times \frac{20}{100}\right)$

$\Rightarrow (17) + (18) + (15)$

$\Rightarrow$ 50% out of 60% of all three exams

Mathematics 52
Homework 1
Fall 2016
Professor: Mohammed Kaabar
Course ID: (27488) and (27501)

Student's Name: Mohammed Kaabar
Student's ID: -Solution-

Note: This homework covers some problems from the **introduction to basic algebra** and **real numbers**.

*Solve **three problems** out of five problems:*

Note: *If you solve **all the five problems correctly**, then you will get **two extra credit points**.*

Problem 1: Jenifer bought a rectangular land of length 800 ft and the width of the land is half its length. Find the area of Jenifer's land.

Area, l, w

$l = 800$ ft

$w = \frac{1}{2}l = \frac{1}{2}(800) = 400$ ft

Area $= l \times w$

$= 800 \times 400 = 320{,}000$ ft^2

Problem 2: Mike took a Pre-Calculus class in summer 2016. He got 85 out of 100 in exam 1, 90 out of 100 in exam 2, and 75 out of 100 in exam 3. Each exam is worth 20 percent. What is his overall percentage of all Pre-Calculus exams?

Problem 3: Jessica is taking an Elementary Algebra class. In the first exam of her class, one of the exam questions was to evaluate the following expression:

$$\frac{w - \Omega + \alpha}{8n + 9\beta\left(\frac{1}{2}\right)}$$

$$\frac{12 - 20 + 3}{8(4) + 9(2)\left(\frac{1}{2}\right)}$$

if it is give the following: $w = 12$, $\Omega = 20$, $\beta = 2$, $\alpha = 3$,

and n *is two times* β.

$$= \frac{-5}{41}$$

Jessica wrote the final answer as:

$$\frac{5}{41}$$

Do you think Jessica's final solution of the problem correct? Explain your reason.

No, it's NOT correct because our answer is $\frac{-5}{41}$ while Jessica's answer is $\frac{5}{41}$.

Problem 4: Translate each of following English phrases to the math language (**algebraic expression**)

Part a: Four more than two times some number, x, added to the product of nine and some number, y. $4 + 2x + 9y$ or $(4) + (2x) + (9y)$

Part b: Two plus nineteen times some number. Assume that some number is t then $(2 + 19t)$

Problem 5: If it is given the following:

$$34 + n(7) - 3 + 2 = 12$$

Then, determine the value of n.

Hint: Your final answer should be as follows:

$$n = -3$$

If you did not get this answer, **PLEASE** review your solution carefully.

$n(7) = 12 - 34 + 3 - 2$

$n(7) = -22 + 3 - 2$

$\frac{n(7)}{7} = \frac{-21}{7} \Rightarrow$ then, $n = \frac{-21}{7} = -3$

So, $\boxed{n = -3}$

We always learn from the challenging math problems.

Practice + Study = Success

Good Luck

Mohammed Kaabar