Pre-algebra

Practice Exam #03

1. Use your calculator to find the value of the expression. Round your answers to the nearest hundredth.

a)
$$(3.01-4.13)^2$$

b)
$$-0.32 - (3.39 - 5.21)$$

2. What number must be added to 0.102 to obtain 3.658? First write out the equation. Let x represent the unknown number. Then solve for x to get your solution.

3. Round your answer to the nearest thousandths. Use your calculator.

a)
$$2.3(4.1-3.5)^3$$

b)
$$\frac{2(1.5)^2}{11}$$

b)
$$\frac{2(1.5)^2}{11}$$
 c) $\frac{3.4(6.1-8.3)}{2.3+0.02}$

4. Change each fraction to a decimal. Use you calculator. Round to the nearest thousandths.

a)
$$\frac{27}{59}$$

b)
$$\frac{106}{3460}$$

5. Change each decimal to a fraction. Reduce to lowest terms.a) 0.875b) 0

- 6. Write the following ratios as a reduced fraction. **Do not use your calculator!**
 - a) 10 to 6

b) $\frac{2}{7}$ to 0.5

7. COSTCO sells 24 rolls of paper towels for \$18.72. Another warehouse store sells the same brand of paper towels and charges \$25.28 for 32 rolls. Which store has the better price?

8. Solve for x. **Do not use your calculator! Write your solution as a reduced fraction!**

a)
$$\frac{x}{3} = \frac{7}{5}$$

b)
$$\frac{\frac{3}{2}}{x} = \frac{\frac{6}{5}}{7}$$

- 9. Answer the following. For part c), be sure to reduce your fraction.
- a) Write 0.203 as a percent.
- b) Write 6.7 % as a decimal.
- c) Write 6.4% as a fraction.

10. Write each fraction as a percent. **Use your calculator. Round your percent to the nearest hundredth!**

a)
$$\frac{19}{215}$$

b)
$$\frac{238}{385}$$

11. Solve the following:

a) A sales clerk has a certain commission rate. A recent paycheck showed the amount of commission earned was \$3580.92. The total sales for the clerk during this pay period was \$29,841.00. What is the commission rate? First, set up the equation using x to represent the unknown quantity. Then solve for x.

Recall: The
$$\left(\begin{array}{c} \mathbf{0}_{\mathbf{0}} \end{array} \right)$$
 of $\left(\begin{array}{c} a \\ total \end{array} \right)$ is $\left(\begin{array}{c} a \\ portion \end{array} \right)$.

b) The purchase price for a microwave oven is \$235.99. A retail store offers a 35% discount. What is the discount amount? What is the new purchase price? **First, set up the equation using x to represent the unknown quantity. Then solve for x.**

- 12. Solve the following. **First, set up the equation using x to represent the unknown quantity. Then solve for x**. Round your final solution to the nearest tenth.
 - a) What percent of 60 is 36?

b) 16% of what number is 41?

13. Answer the following questions. **First, set up the equation using x to represent the unknown quantity. Then solve for x. Round your solution to the nearest whole number.**

Recall: The
$$\left({\color{red}0\!\!\!\!/_{\!\!\!0}} \right)$$
 of $\left({\color{red}a \atop total} \right)$ is $\left({\color{red}a \atop portion} \right)$.

a) The total student population at a local community college is 56% female. If there are 17,358 enrolled at the college, how many female students attend this college. **Round your solution to the nearest whole number.**

b) A farmer owns 56 acres of land. Of the 56 acres, only 65% can be farmed. How many acres are available for farming? **Round your solution to the nearest whole number.**

c) An investor places \$15,000.00 into a savings account. The interest rate is 5.75% compounded annually. How much money is in the savings account after two years? **Note:** I = PRT

d) An investor places \$8,000.00 into a savings account. The interest rate is 5.75% compounded quarterly. How much money is in the savings account after four

years? Note:
$$A = P \left(1 + \frac{r}{n} \right)^{nt}$$

Salution

Math351

Practice Exam #03

1. Use your calculator to find the value of the expression. Round your answers to the nearest hundredth.

b)
$$-0.32 - (3.39 - 5.21)$$

 $-0.32 - (-1.82)$
 $-0.32 + 1.82$

2. What number must be added to 0.102 to obtain 3.658? First write out the equation. Let x represent the unknown number. Then solve for x to get your solution.

$$0.102 + \chi = 3.658$$
 -0.102
 $\chi = 3.556$

3. Round your answer to the nearest thousandths. Use your calculator.

a)
$$2.3(4.1-3.5)^3$$
 $2.3(0.6)^3$
 $2.3(0.216)$
 0.4968

b)
$$\frac{2(1.5)^2}{11}$$

c)
$$\frac{3.4(6.1-8.3)}{2.3+0.02}$$

$$\frac{Z(2.25)}{11}$$
 $\frac{3.4(-2.2)}{2.32}$

4. Change each fraction to a decimal. Use your calculator. Round to the nearest thousandths.

a)
$$\frac{27}{59}$$

b)
$$\frac{106}{3460}$$

- 5. Change each decimal to a fraction. Reduce to lowest terms.
 - a) 0.875



b) 0.008

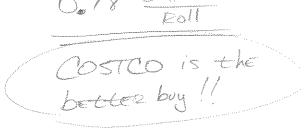
6. Write the following ratios as a reduced fraction. **Do not use your calculator!**

b)
$$\frac{2}{7}$$
 to 0.5



7. COSTCO sells 24 rolls of paper towels for \$18.72. Another warehouse store sells the same brand of paper towels and charges \$25.28 for 32 rolls. Which store has the better price?





(L) DEE house

0.79 dollares

8. Solve for x. **Do not use your calculator! Write your solution as a reduced** fraction!

a)
$$\frac{x}{3} = \frac{7}{5}$$

$$\frac{5y=21}{5}$$

$$b) \frac{\frac{3}{2}}{x} = \frac{\frac{6}{5}}{7}$$

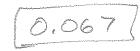
$$7(3) = 8(x)$$

$$\frac{2I}{Z} = \frac{6x}{5}$$

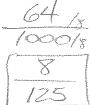
$$\frac{105}{12} = \frac{12x}{12}$$

- 9. Answer the following. For part c), be sure to reduce your fraction.
- a) Write 0.203 as a percent.
- b) Write 6.7 % as a decimal.
- c) Write 6.4% as a fraction.





$$\frac{6.4}{100} \left(\frac{10}{10} \right)$$



10. Write each fraction as a percent. Use your calculator. Round your percent to the nearest hundredth!

a)
$$\frac{19}{215}$$

b)
$$\frac{238}{385}$$

11. Solve the following:

a) A sales clerk has a certain commission rate. A recent paycheck showed the amount of commission earned was \$3580.92. The total sales for the clerk during this pay period was \$29,841.00. What is the commission rate? First, set up the equation using x to represent the unknown quantity. Then solve for x.

Recall: The
$$\binom{0}{0}$$
 of $\binom{a}{total}$ is $\binom{a}{portion}$.
 $2 = 29,841.00 = 3,580.92$

$$X = 0.12$$

$$\left[X = 12\%\right]$$

b) The purchase price for a microwave oven is \$235.99. A retail store offers a 35% discount. What is the discount amount? What is the new purchase price? First, set up the equation using x to represent the unknown quantity. Then solve for x.

- 12. Solve the following. First, set up the equation using x to represent the unknown quantity. Then solve for x. Round your final solution to the nearest tenth.
 - a) What percent of 60 is 36?

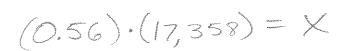
b) 16% of what number is 41?

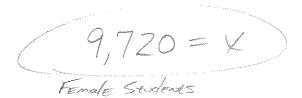
$$\frac{60x = \frac{36}{60}}{60}$$

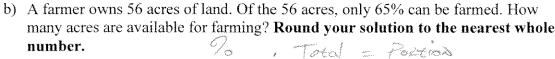
13. Answer the following questions. First, set up the equation using x to represent the unknown quantity. Then solve for x. Round your solution to the nearest whole number.

Recall: The
$$\left(\frac{9}{0}\right)$$
 of $\left(\frac{a}{total}\right)$ is $\left(\frac{a}{portion}\right)$.

a) The total student population at a local community college is 56% female. If there are 17,358 enrolled at the college, how many female students attend this college. Round your solution to the nearest whole number.







$$(6.65) \cdot (56) = X$$

$$36.4 = X$$

$$36.4 = X$$

c) An investor places \$15,000.00 into a savings account. The interest rate is 5.75% compounded annually. How much money is in the savings account after two New Principal for 2nd year years? Note: I = PRT

$$I^{\#}/\epsilon a e$$
:

 $I = P e^{T}$
 $I = (15,000)(0.0575)(1)$
 $I = (15,86)$

$$\begin{array}{lll}
\text{(15,000)}(0.0575)(1) & Z^{1} & Z^{2} & Z^{2} & Z^{2} \\
\text{Edg.} & 50 & Z^{2} & Z^{2} & Z^{2} \\
\text{Interest earned Acee } & Z^{2} & Z^{2} & Z^{2} \\
\text{Interest earned Acee } & Z^{2} & Z^{2} & Z^{2} \\
\text{Interest earned Acee } & Z^{2} & Z^{2} & Z^{2} \\
\text{Interest rate is 5.75\%}
\end{array}$$
d) An investor places \$8,000.00 into a savings account. The interest rate is 5.75%

d) An investor places \$8,000.00 into a savings account. The interest rate is 5.75% compounded quarteely. How much money is in the savings account after four

years? Note:
$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$

$$A = 8,000(1 + \frac{0.0575}{4})^{4.4}$$

$$A = 8,000 (1.014375)^{16}$$